IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

APPLE INC., *Plaintiff*, v. MASIMO CORPORATION and SOUND UNITED, LLC, *Defendants*.	C.A. No. 22-1377-MN-JLH **JURY TRIAL DEMANDED**
MASIMO CORPORATION, SOUND UNITED, LLC *Counter-Claimants,* v. APPLE INC. *Counter-Defendant.*	
APPLE INC., *Plaintiff,* v. MASIMO CORPORATION and SOUND UNITED, LLC, *Defendants.*	C.A. No. 22-1378-MN-JLH **JURY TRIAL DEMANDED**
MASIMO CORPORATION, CERCACOR LABORATORIES, INC., SOUND UNITED, LLC *Counter-Claimants,* v. APPLE INC. *Counter-Defendant.*	

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All emphasis added unless otherwise noted.

I. Agreed-Upon Constructions

A. Asserted Apple Design Patents

Patent(s)	Term(s)	Agreed Upon Constructions
D'279, D'842, D'936	N/A	The broken lines in the figures show portions of the electronic device and environment that form no part of the claimed design.
D'279	N/A	The oblique line shading shows a transparent, translucent and highly polished or reflective surface.
D'131	N/A	The broken lines in the figures show portions of the charger and environment that form no part of the claimed design. The shade lines in the figures show contour and not surface ornamentation.

B. Asserted Apple Utility Patents

Patent(s)	Term(s)	Agreed Construction
'257	lead	plain and ordinary meaning
'257	pad	plain and ordinary meaning
'257	conductivity	plain and ordinary meaning
'783, '491	water-tight seal; waterproof seal	plain and ordinary meaning
'352	power savings state	plain and ordinary meaning
'352	home screen user interface	plain and ordinary meaning

II. Disputed Constructions

A. Introduction

Apple's Introduction:[1] Apple's constructions follow the case law and adhere to the claims and specifications. Masimo, on the other hand, seeks to construe simple terms with unnecessary verbiage that is unsupported by the case law or the patents themselves. With respect to the design patents, Apple applies the long-standing principle that design claims should be construed by pointing to the figures and not, as Masimo advances, by providing excessive verbiage describing those figures. With respect to the utility patents, Masimo's constructions improperly (1) limit the terms to exemplary embodiments; (2) exclude disclosed embodiments; and (3)

[1] Apple submits this joint brief in accordance with the requirement of the Court's Scheduling Order to "copy and paste [the parties'] unfiled briefs into one brief." This brief follows the format of those unfiled briefs, which grouped similar terms together.

contradict the constructions Masimo advanced in its *inter partes* review ("IPR") petitions. Accordingly, Masimo's constructions should be rejected.

Masimo's Introduction: The Court should adopt Masimo's constructions because they accurately describe the figures, properly reflect the intrinsic evidence and Apple's own characterization of the designs, and identify the non-functional elements. Apple disputes Masimo's constructions and argues each design patent should have the same construction that says merely "[t]he ornamental design . . . as shown in" the figures. Apple's constructions are unhelpful, conflict with its own positions, and fail to distinguish potentially ornamental aspects from non-protectable functional elements.[2]

Apple observes that design patents ***typically*** do not require detailed "verbal constructions." But in this case, detailed constructions are required for many reasons. First, Apple relied on detailed constructions before the Patent Office in IPRs. Second, Apple responded to Masimo's Invalidity Contentions in this case by narrowly construing the claims as it did in IPRs. Third, Apple relied on its detailed constructions when Apple sought to expedite trial here. Fourth, design patents can claim only an "ornamental design."

Apple now disputes its prior positions, arguing that detailed descriptions are improper. But the descriptions are necessary to ensure the jury applies the constructions that Apple asserts distinguish the claimed designs from the prior art. Such descriptions will also help the jury understand and compare the claimed designs to the prior art and the accused products.

B. Construction of the Apple Design Patents

1. Apple's Opening Position

[2] Masimo requested that Apple format this brief to address each claim term in sequential order, as required by Paragraph 12 of the Court's Scheduling Order. Apple refused for the design patent section. Instead, Apple copied and pasted the entire design patent section of Apple's opening brief, followed by the entire design patent section of Masimo's answering brief, and so on.

U.S. Patent Nos. D883,279 (the "D'279 Patent"); D947,842 (the "D'842 Patent"); and D962,936 (the "D'936 Patent") each claim the ornamental design for an electronic device. U.S. Patent No. D735,131 (the "D'131 Patent") claims the ornamental design for a charger. "[T]he preferable course ordinarily will be for a district court not to attempt to 'construe' a design patent claim by providing a detailed verbal description of the claimed design." *Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665, 679 (Fed. Cir. 2008). Accordingly, the Court should adopt only a short instruction that each patent claims the ornamental design shown in the patent's figures, as Apple proposes below.

No.	Apple's Proposed Constructions	Masimo's Proposed Constructions
A-1	The claim of the D'279 Patent: The ornamental design for an electronic device, as shown in Figures 1-9 of the D'279 Patent.	*See* A-2 through A-12.
A-13	The claim of the D'842 Patent: The ornamental design for an electronic device, as shown in Figures 1-9 of the D'842 Patent.	*See* A-2, A-3, A-9, A-11, A-12
A-17	The claim of the D'936 Patent: The ornamental design for an electronic device, as shown in Figures 1-9 of the D'936 Patent.	*See* A-2, A-3, A-11, A-12, A-14 through A-16
A-18	The claim of the D'131 Patent: The ornamental design for a charger, as shown in Figures 1-11 of the D'131 Patent.	*See* A-19 through A-25

Masimo erroneously asks this Court to ignore the Federal Circuit's guidance and construe the claims by dividing up the features and providing 1400 words of detailed verbal descriptions.

a) Masimo's Verbal Descriptions Are Unnecessary and Improper (Terms A-1, A-3 to A-13, A-15 to A-18, A-20 to A-25)

The Supreme Court has long recognized that a design is better represented by an illustration than by a verbal description. *Dobson v. Dornan*, 118 U.S. 10, 14 (1886). The Federal Circuit cautions against providing detailed verbal descriptions as constructions "[g]iven the recognized difficulties entailed in trying to describe a design in words." *Egyptian Goddess,* 543 F.3d at 679.

Detailed constructions are ill-advised because of "the risk of placing undue emphasis on particular features of the design and the risk that a finder of fact will focus on each individual described feature in the verbal description rather than on the design as a whole." *Id.* at 679–80. "By and large, in the wake of *Egyptian Goddess*, district courts have heeded the Federal Circuit's warning of the dangers of 'undue emphasis on particular features' of the patented design" and have thus "declined to provide detailed claim constructions of design patents." *Reddy v. Lowe's Companies, Inc.*, 60 F. Supp. 3d 249, 254 (D. Mass. 2014) (quoting *Crocs, Inc. v. Int'l Trade Comm'n*, 598 F.3d 1294, 1302–03 (Fed. Cir. 2010)).

A construction that defers to the patent's figures—like Apple's proposals—is "in accordance with the most recent claim constructions rendered by federal district courts in the design patent context." *Junker v. Med. Components, Inc.*, 2017 WL 4922291, at *7 (E.D. Pa. Oct. 31, 2017) (collecting cases); *see, e.g.*, *SZ DJI Tech. Co. v. Autel Robotics USA LLC*, 2019 WL 6840357, at *2 (D. Del. Dec. 16, 2019) ("The ornamental design for a rotor aircraft, substantially as shown and described in Figures 1-7."); *Reddy*, 60 F. Supp. 3d at 260 ("The ornamental design for a bathroom vanity light shade, as shown and described in Figures 1-5."). Those courts rejected detailed verbal descriptions because such descriptions focus on individual elements and distract from the design as a whole. *See, e.g.*, *SZ DJI*, 2019 WL 6840357, at *4 (rejecting defendant's "focus on individual elements" as "misplaced"); *see also Crocs*, 598 F.3d at 1303 (overruling claim construction that "focused on particular features" which led the trier of fact "away from consideration of the design as a whole").

Masimo's overly detailed descriptions should be rejected because they distract from the design as a whole. For example, in Term A-9, Masimo replaces the figures' visual depictions with over 300 words to describe the "four-sided shapes," detailing their arrangement, the length of each

side, the gaps between the shapes, and how those dimensions relate to other elements. The court in *Yao-Hung Huang v. Marklyn Grp. Inc.* rejected a similar proposed construction that specified the relative thickness, spacing, and arrangements of elements because the proposal "clearly risks 'placing undue emphasis on particular features of the design and . . . focus[ing the finder of fact] on each individual described feature in the verbal description rather than on the design as a whole.'" 2012 WL 4856720, at *2 & n. 2 (D. Colo. Oct. 11, 2012) (quoting *Egyptian Goddess*, 543 F.3d at 680).

Masimo's verbiage concerning the specific proportions of the design elements in the figures should similarly be rejected. *See, e.g.*, Term A-4 ("The height of the protrusion is approximately 12% of the diameter of the protrusion."); Terms A-5, A-8, A-9, A-10, A-15, A-16, A-22, A-25. Courts routinely reject detailed measurements of specific elements as inappropriate because they over-emphasize particular elements. *See Yao-Hung Huang*, 2012 WL 4856720, at *2 (rejecting "mathematical ratios" of elements that would put "undue emphasis on particular features of the design"); *Carlini Enterprises, Inc. v. Paul Yaffe Design, Inc.*, 2014 WL 4060026, at *3 (C.D. Cal. Aug. 15, 2014) (rejecting proposal to narrow constructions of "measurements and dimensions not explicitly contained within the patent"); *HFA, Inc. v. Trinidad/Benham Corp.*, 2018 WL 1210880, at *4 (E.D. Tex. Mar. 7, 2018) (limiting construction to "the ornamental design for a nested pans, as shown and described in Figures 1 to 14" even though "[t]he dimensions and angles of the pans are further emphasized in the . . . prosecution history"). The Court should likewise reject construing the proportions here.

Masimo's proposed constructions of the designs' "overall appearance" (*e.g.*, Terms A-8 and A-12) are similarly unnecessary distractions. Even accurate descriptions do not justify ignoring *Egyptian Goddess*'s caution that "a design is better represented by an illustration 'than it

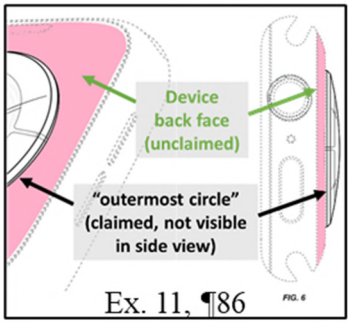
could be by any description and a description would probably not be intelligible without the illustration.'" *See* 543 F.3d at 679 (quoting *Dobson*, 118 U.S. at 14). While the Court may consider "the overall effects of the design" in order to determine ***infringement*** (in tandem with examining the prior art and the accused design), the ***claim construction*** should not include a description of the visual impression. *See Crocs*, 598 F.3d at 1303, 1306 (Federal Circuit explaining that the proper construction was "the design shown in Figures 1–7" even while considering the "overall effects of the design" for determining infringement). This Court should do the same.

Masimo may argue that its verbal descriptions, though generally disfavored, are necessary because Apple disclaimed scope during the related IPR proceedings. But Masimo fails to identify any particular statements that allegedly disclaimed scope. And even if Masimo could demonstrate that Apple's statements rose to the level of both "clear and unambiguous disavowal" (*Invitrogen Corp. v. Biocrest Mfg., L.P.*, 327 F.3d 1364, 1369 (Fed. Cir. 2003))—it cannot—the Court should defer analysis of the prosecution history until "a later stage in the litigation, such as summary judgment or jury instructions." *Reddy*, 60 F. Supp. 3d at 254; *see Depaoli v. Daisy Mfg. Co., Inc.*, 2009 WL 2145721, at *5 (D. Mass. July 14, 2009) (same); *Dexas Int'l, Ltd. v. Office Max Inc.*, 2009 WL 252164, at *5 (E.D. Tex. Jan. 30, 2009) (deferring until jury instructions). That approach follows *Egyptian Goddess* because elements affected by prosecution history "are entitled to no more special attention from the jury on the question of infringement than any other elements of the design," but a construction that specifically calls out those elements "would place undue emphasis on those few elements." *Depaoli*, 2009 WL 2145721, at *5. Additionally, any instruction by the Court regarding disclaimer may depend on Masimo's identification of specific prior art for its trial presentation. *See Nike, Inc. v. Skechers U.S.A., Inc.*, 2019 WL 12528983, at *7–8 & n.2 (C.D. Cal. Mar. 28, 2019) (deferring consideration of IPR disclaimer arguments until

defendant identified specific prior art).

b) The Design Patents' Claims Are Definite (Terms A-2, A-14, A-19)

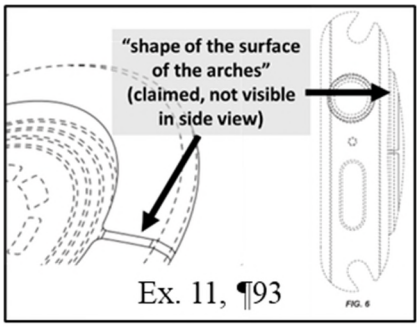
To show that the Design Patents are indefinite, Masimo must establish by clear and convincing evidence that "one skilled in the art, viewing the design as would an ordinary observer, would not understand the scope of the design with reasonable certainty based on the claim and visual disclosure." *See SZ DJI*, 2019 WL 6840357, at *4 (quoting *In re Maatita*, 900 F.3d 1369, 1377 (Fed. Cir. 2018)). Masimo cannot meet that burden. Here, all four patents set forth a clear overall appearance of their designs through conventional drafting techniques and multiple points of view, and none of Masimo's challenges rise to the required level of a material inconsistency of such a magnitude that the overall appearance of the design is unclear. *Deckers Outdoor Corp. v. Romeo & Juliette, Inc.*, 2016 WL 7017219, at *3–4 (C.D. Cal. Dec. 1, 2016). As explained by Mr. Ball, Apple's industrial design expert, a designer of skill in the art ("DOSA"), viewing the designs as would an ordinary observer, would understand with reasonable certainty that the Design Patents claim each of the elements identified by Masimo as allegedly indefinite: the "outermost circle" (for D'279, D'842, and D'936 Patents); the "shape of the surface of the arches" (D'842 and D'936 Patents); and the "bottom surface" (D'131 Patent). *See* Apple Ex. 11, ¶¶86, 93, 101.



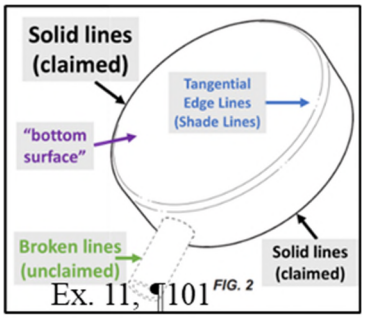
Masimo's first challenge misunderstands how a DOSA would view the full set of figures showing the "outermost circle" in the D'279, D'842, and D'936 Patents. Figures 2 and 4 show rear views, where the "outermost circle" is drawn in solid lines and thus claimed. *Id.*, ¶84. The side views, like Figures 5 and 6, cannot show those elements as clearly as in the rear views because the unclaimed portion of the back of the device occludes the more inset, claimed "outermost circle." *Id.*, ¶86. As Mr. Ball explains, a DOSA would look to the rear figures

to determine if the outermost circle is claimed because those figures provide the best view of that element. *Id.*, ¶¶84-86. The lack of clarity in a side view of an inset element is a problem inherent to two-dimensional drawings, not the claimed designs. *Deckers*, 2016 WL 7017219, at *4 ("[A] reasonable boot designer, in deciding whether the claimed design includes a notch, would look to the drawings that provide the clearer—not the more obscured—view of that part of the boot.").

Similarly, Masimo's second challenge misunderstands how a DOSA would understand the full set of figures depicting the "arches" in the D'842 and D'936 Patents. A DOSA would use the rear views as the optimal views to determine whether the "shape of the surface of the arches" is claimed, where they are unambiguously drawn in a solid line. Apple Ex. 11, ¶93. A DOSA would not look to the side views alone to understand whether the "arches" are claimed because of the interaction with other unclaimed elements (like the "circular protrusion") and the limitations of two-dimensional drawings. *See id.*, ¶94; *Deckers*, 2016 WL 7017219, at *4. As Mr. Ball explained, a DOSA reviewing the patents as a whole would understand that the "shape of the surface of the arches" is claimed in the D'842 and D'936 Patents. Apple Ex. 11, ¶¶93-95.



Masimo's third challenge regarding whether D'131 Patent's "bottom surface" is claimed is mooted by Masimo's agreement regarding the types of lines used in patent drawing. *See* Case 22-1377, D.I. 173, Ex. A ("JCCC") at 28. While broken lines designate unclaimed elements, shade lines show the contour of surfaces and are claimed. *See id.*; Apple Ex. 11, ¶101 (citing MPEP 1503.02). A DOSA would understand that the "bottom surface" is claimed in all figures because it is included within solid lines (*see, e.g.*, Figures 2, 4, 6, 8), though some figures



use shade lines to show contour. Apple Ex. 11, ¶101. Masimo cannot clearly and convincingly show that any of its "inconsistencies" preclude the overall understanding of the patents' claimed designs.

2. Masimo's Answering Position

a) The Court Has Discretion to Provide Detailed Descriptions

The Court has discretion "regarding the level of detail to be used in describing the claimed design." *Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665, 679 (Fed. Cir. 2008) (*en banc*). The Federal Circuit expressly left "the question of verbal characterization of the claimed designs to the discretion of trial judges," holding that, "absent a showing of prejudice, the court's decision to issue a relatively detailed claim construction will not be reversible error." *Id.* at 680. There, the Federal Circuit affirmed the district court's "detailed verbal description." *Id.*

The Federal Circuit has approved detailed constructions of design patents, including relative proportions. *See Lanard Toys Limited v. Dolgencorp LLC*, 958 F.3d 1337, 1342-44 (Fed. Cir. 2020) (affirming construction where "the district court meticulously acknowledged the ornamental aspects of each functional element . . . and the specific proportional size of these elements in relation to each other.'"); *OddzOn Prod., Inc. v. Just Toys, Inc.*, 122 F.3d 1396, 1405 (Fed. Cir. 1997) (affirming detailed construction properly limiting the scope "to its overall ornamental visual impression"). The Federal Circuit even reversed a district court that failed to provide sufficiently detailed descriptions. *High Point Design LLC v. Buyers Direct, Inc.*, 730 F.3d 1301, 1314 (Fed. Cir. 2013) ("the district court erred in failing to translate the design . . . into a verbal description" and, on remand, should "add sufficient details to its verbal description of the claimed design to evoke a visual image consonant with that design."). For the reasons discussed below, the Court should exercise its discretion to provide detailed constructions.

b) Apple's IPR Constructions Inform Claim Construction

Masimo petitioned for IPR of each Apple design patent. Apple responded by relying on detailed constructions to describe and narrow the scope of the claimed designs in its effort to distinguish prior art. *See, e.g.*, D.I. 170 (22-1378) ("JCCC"), Ex. C at 280-87 (D'279 POPR), 188-95 (D'842 POPR), 67-71 (D'936 POPR).[3] Apple's IPR arguments are part of the prosecution history that should be considered in construing the claimed designs. *See, e.g.*, *Aylus Networks, Inc. v. Apple Inc.*, 856 F.3d 1353, 1360-61 (Fed. Cir. 2017) (appropriate to consider statements made by a patent owner during an IPR proceeding for claim construction); *Apple, Inc. v. Samsung Elecs. Co.*, 2012 WL 3071477, at *9 (N.D. Cal. 2012) ("*Egyptian Goddess*'s description of the use of prosecution history in determining the scope of a design patent . . . allows for statements made during prosecution to be considered as intrinsic evidence.").

Apple argues that its IPR statements do not rise to the level of "clear and unambiguous disavowal." *Supra* at 6. But "even where prosecution history statements do not rise to the level of unmistakable disavowal, they do inform claim construction." *Univ. of Mass. v. L'Oreal S.A.*, 36 F.4th 1374, 1379 (Fed. Cir. 2022). Masimo's constructions properly reflect Apple's statements.

c) <u>The Court Should Consider the Prosecution History Now</u>

Apple asks the Court to defer analysis of the prosecution history (and thus Apple's IPR constructions and arguments) until summary judgment or jury instructions. *Supra* at 6. But Apple's cases do not support deferring consideration of the prosecution history as a matter of course. Indeed, none of the concerns articulated in Apple's cases apply here. Unlike in Apple cases, Apple not only offered detailed constructions during IPRs, but also in this case; in response to Masimo's invalidity contentions and in support of Apple's motion to accelerate the schedule.

[3] Those IPRs are pending. Apple has not yet filed a POPR for the charger design patent (D'131).

Infra Section II.B.2.e. Apple's kick-the-can-down-the-road approach is particularly inappropriate because Apple succeeded in obtaining an accelerated schedule.

Apple's reliance on *Nike* to defer any instruction "regarding disclaimer" until Masimo identifies "specific prior art for its trial presentation" is without merit. *Supra* at 6. First, Masimo identified the specific prior art at issue in Masimo's invalidity contentions and Apple offered its detailed constructions in response to that specific prior art. Second, intrinsic evidence need not be an express disclaimer to inform claim construction. *U. Mass.*, 36 F.4th at 1379.

d) Claim Construction Should Identify Non-Functional Elements

Where the claimed design "contains both functional and non-functional elements, the scope of [each] claim ***must be construed*** in order to identify the non-functional aspects [if any] of the design as shown in the patent." *OddzOn*, 122 F.3d at 1405. The Federal Circuit has "often blessed claim constructions" that, for example, "helped the fact finder 'distinguish between those features of the claimed design that are ornamental and those that are purely functional.'" *Sport Dimension, Inc. v. Coleman Co.*, 820 F.3d 1316, 1320 (Fed. Cir. 2016) (internal citation omitted). Distinguishing between functional and non-functional elements is critical because "the scope of a design patent claim 'must be limited to the ornamental aspects of the design.'" *Id.*; *Richardson v. Stanley Works, Inc.*, 597 F.3d 1288, 1293 (Fed. Cir. 2010).

The Federal Circuit has identified numerous factors that may "serve as a useful guide for claim construction functionality" including whether (a) the claimed design represents the best design; (b) alternative designs would adversely affect the article's utility; (c) there are concomitant utility patents; (d) advertising touts design features as having specific utility; and (e) there are any design elements or an overall appearance clearly not dictated by function. *Sport Dimension*, 820 F.3d at 1322. Masimo's constructions follow precedent by identifying the potentially ornamental

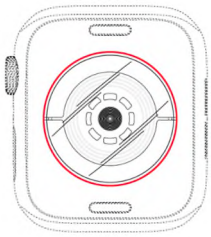
non-functional aspects of the claimed designs. In contrast, Apple's constructions merely point to the figures, ignoring the many functional, and non-protectable, elements. *Supra* at 2-6.

e) Masimo's Constructions Reconcile the Figures, Intrinsic Evidence, and Functionality

Apple argues for the same universal non-construction for each patent, as reflected in Terms A-1, 13, 17, 18. Masimo demonstrates below why each of Masimo's constructions is appropriate.

i. The Watch Design Patents (D'279, D'842, and D'936)

Term A-3: The Watch Design Patents claim an outermost circle on the bottom of an electronic device (shown at right in red). Masimo Ex. 14 (Delman Decl.) ¶40. To distinguish prior art, Apple argued to the Patent Office, and in this case, that the claimed designs include such an "outermost continuous circle." *See, e.g.*, JCCC, Ex. C at 68-70, 189-191, 281-283; Masimo Ex. 16 (Apple's Resp. to Inv. Conts.) at 8, 39-40, 67. There is no dispute this outermost circle is on the bottom of an electronic device only.



This circular element is functional. Masimo Ex. 15 (Duckworth Decl.) ¶¶72-74, 109-11, 144-46. Functions of the circular shape include increasing user comfort, providing the most efficient shape for housing a circular sensor, and maximizing the useable sensor surface area for a given sensor width. *Id.* Apple's utility patents confirm this element is functional. *Id.* Because this element lacks ***any*** ornamentation, this Court should not include this element in its final claim construction to the jury.

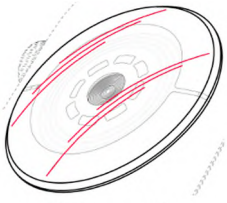
Terms A-4, A-5, A-6: D'279 claims a circular protrusion coextensive with and protruding from the outermost circle (shown at right in red). Masimo Ex. 14 ¶41. The protrusion includes three portions; a cylindrical portion protruding from the outermost circle, the below-described convex dome, and a chamfered edge

between them. *Id.* To distinguish prior art, Apple represented to the Patent Office, and in this case, that the claimed design includes a "protruding circular element with a beveled edge." JCCC, Ex. C at 281, 285, 297; Masimo Ex. 16 at 8; *see* D.I. 51 (22-1377), Ex. M at 35 ("[a] protruding circular element having a concentric circular arrangement with a beveled edge").

The protrusion is functional. Masimo Ex. 15 ¶¶75-85. Its convex surface was designed to snugly mate and precisely align with the pre-existing Apple Watch charger design and it provides the best design for these functions. *Id.* Indeed, one of Apple's named inventors, Brian Land, testified that development of the protrusion (and protruding arches) were driven by functional considerations. Masimo Ex. 42 at 103:5-13. Apple's concomitant utility patents, the prior art, and advertisements confirm the protrusion is functional. Masimo Ex. 15 ¶¶78-82. The chamfered edge functions to improve user comfort and the cylindrical portion improves sensor accuracy. *Id.* ¶¶83-85.

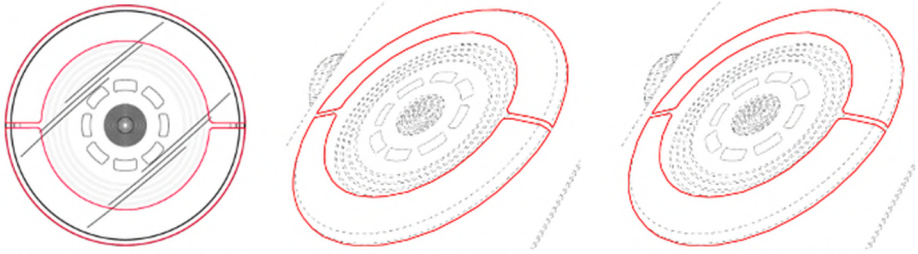
Because these elements are functional, the construction should be limited to the ornamental aspects of the design. Masimo identified the purportedly ornamental features in its constructions, namely, that the protrusion is coextensive with and protruding from the outermost circle, and having the illustrated shape and proportions. *See infra* Section II.B.2.e.iii; Masimo Ex. 14 §§ V.A.4, V.B.2.

Term A-7: D'279 claims a convex dome drawn with oblique line shading (shown at right in red). The parties agree "[t]he oblique line shading shows a ***transparent, translucent and highly polished or reflective surface***." JCCC at 28. Thus, the convex dome should be construed as an entirely "transparent, translucent and highly polished or reflective surface." Masimo Ex. 14 ¶41.



D'279 Patent at FIG. 2

Terms A-8, A-15: The Watch Design Patents claim two arches (outlined in red below) having flat ends. Masimo Ex. 14 ¶42. The outer edge of each arch coincides with the outermost circle. *Id.*



D'279 Patent, FIG. 4 '842 Patent, FIG. 2 '936 Patent, FIG. 2

The flat ends have a rounded transition to the arches' inner edge and a sharp (perpendicular) transition to the arches' outer edge. *Id.* The flat ends are separated by a small gap.[4] *Id.* Apple contends that, like D'279, D'842 and D'936 claim arches that protrude from the outermost circle with a convex portion, chamfered edge, and cylindrical portion.[5] *Supra* at 7-8.

To distinguish prior art, Apple argued to the Patent Office that the claimed designs include "[a]n outer circular shape" that is "formed by thin, elongated arches positioned within the outermost continuous circle" and provide a "unified circular appearance." JCCC, Ex. C at 69-70, 189, 194, 281, 286. Apple also argued "[t]he inner edges of the arches are raised relative to the outermost continuous circle, resulting in the appearance that the arches protrude upward from the outermost continuous circle," and "the distance between the inner edges of the arches and the outermost continuous circle . . . is relatively small and complementary to the proportions of other features." JCCC, Ex. C at 189, 194, 281, 286. In this litigation, again to distinguish prior art,

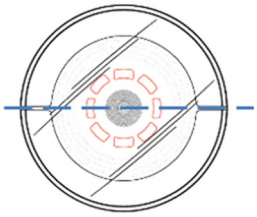
[4] The proportions in Masimo's constructions are addressed in Section II.B.2.e.iii.
[5] D'842 and D'936 are indefinite because it is unclear whether they claim the protruding shape of the arches (the cylindrical, chamfered, and convex surfaces) as in D'279. *Infra* Section II.B.2.g.

Apple and its expert relied on similar verbal constructions of the claimed designs. *See* Masimo Ex. 16 at 8-9, 39-40, 66-67; D.I. 51 (22-1377), Ex. M ¶¶113, 117, 121.

The arches and their general arrangement are functional. Masimo Ex. 15 ¶¶86-94, 125-33, 160-68. The arches depict the ECG electrodes on the back of the Apple Watch Series 4. *Id.* Functions of the arches and their arrangement include providing the best design for measuring electrical impulses through the skin and avoiding interference with the array of photodiodes (which the patents depict as four-sided shapes) receiving light to measure pulse rate. *Id.* ¶¶86-94, 125-33, 160-68. The arches function as "metal electrodes" in the Apple Watch's ECG feature to "pick up electrical signals that are coming from your body." Masimo Ex. 42 at 68:22-69:9. Apple's utility patents confirm this element is functional. Masimo Ex.15 ¶¶88-90, 127-29, 162-64. Alternative designs would adversely affect the utility of the arches by, for example, making the electrodes less likely to properly contact the skin and measure electrical impulses. *Id.* ¶¶91-93, 130-32, 165-67.

Because the arrangement of arches is functional, the construction should be limited to the ornamental aspects of the designs. Masimo's construction identified the purportedly ornamental features by including Apple's representations about the arches, namely that the outer edge of each arch coincides with the outermost circle, each arch has a flat end with a rounded transition to the inner edge of each arch and a sharp transition (perpendicular intersection) to the outer edge of each arch, and with the proportions illustrated in the figures. As discussed below in Section II.B.2.g, D'842 and D'936 are indefinite because it is ambiguous whether they claim the shape of the arches.

Term A-9: D'279 and D'842 claim eight four-sided shapes (shown in red below) arranged symmetrically in a circle on a surface that is below the convex portion of the arches. Masimo Ex. 14 ¶43. Two of the four-sided shapes are centered on an imaginary line (shown in blue) formed by the gaps between the



See, e.g., D'279 Patent, FIG. 4

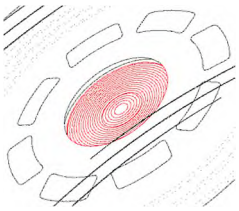
arches. *Id.* Each four-sided shape is elongated, with two longer sides and two shorter sides. *Id.* The shorter sides are flat and substantially parallel to one another, forming trapezoidal gaps between each four-sided shape that narrow toward the center of the outermost circle. *Id.* The figures also show that the gaps between the four-sided shapes are wider than the gaps between the arches. *Id.*

To distinguish prior art, Apple argued to the Patent Office the claimed design includes "eight four-sided shapes aligned to form an inner broken-circular shape smaller in diameter than the outer broken-circular shape." D.I. 51 (22-1377), Ex. M at 35; *see* JCCC, Ex. C at 281-284; *see also* Masimo Ex. 16 at 8.

The arrangement of the four-sided shapes is functional. Masimo Ex. 15 ¶¶95-99, 134-38. These shapes depict the photodiodes of the optical sensor inside Apple Watch Series 4. *Id.* The arrangement of was designed to maximize the accuracy of the optical sensor. *Id.* Apple's concomitant utility patents and the prior art confirm that this arrangement is functional. *Id.*

Because this element is functional, the construction should be limited to the ornamental aspects of the design. Masimo identified the purportedly ornamental features in its constructions, namely, that the four-sided shapes are arranged on a surface below the convex portion of the arches, two of the four-sided shapes are centered on an imaginary line formed by the gaps between the arches, each four-sided shape has two shorter and two longer sides, the shorter sides are flat and substantially parallel forming eight trapezoidal gaps between the shapes that narrow toward the center of the outermost circle, the gaps between the shapes are wider than the gaps between the arches, and with the proportions illustrated in the figures.

Term A-10: D'279 claims twenty concentric circles (shown at right in red) in the center of the outermost circle surrounded by the arrangement of four-sided shapes. Masimo Ex. 14 ¶44. The perspective view figure shows the concentric circles are recessed below the surface having the four-sided shapes because the surface with the four-sided shapes obscures some of the concentric circles. *Id.*

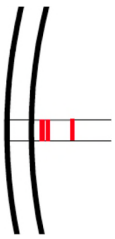


To distinguish prior art, Apple argued to the Patent Office, and in this case, that the claimed design includes "a central round shape, spaced apart from and positioned within the inner circle shape." JCCC, Ex. C at 281; *see also* Masimo Ex. 16 at 9; D.I. 51 (22-1377), Ex. M at 35.

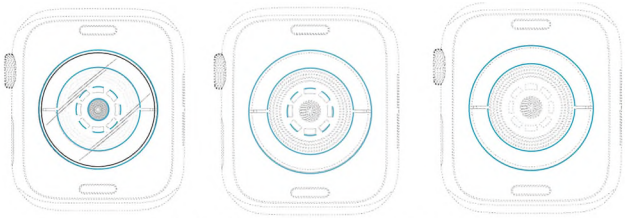
The concentric circles are functional. Masimo Ex. 15 ¶¶100-103. The concentric circles depict the Fresnel lens over the LEDs in the Apple Watch Series 4. *Id.* The Fresnel lens is designed to improve the efficiency of the optical sensor. *Id.* Apple's concomitant utility patents and the prior art confirm that this element is functional. *Id.*

Because this element is functional, the construction should be limited to the ornamental aspects of the design. Masimo identified the purportedly ornamental features in its constructions, namely, twenty concentric circles are in the center of the outermost circle and surrounded by the arrangement of four-sided shapes, the concentric circles are recessed below the surface having the four-sided shapes, and the proportions of the radii illustrated in the figures.

Term A-11: The Watch Design Patents claim three parallel lines spanning the gap between the ends of the arches (shown at right in red). Masimo Ex. 14 ¶45. The parallel lines are not visible in any side view figures, meaning the lines are below the arches' convex portion. *Id.*



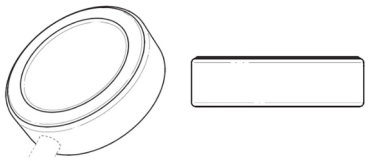
Term A-12: For each Watch Design Patent, the figures show the overall appearance of the claimed design. Masimo Ex. 14 ¶46. To distinguish prior art, Apple repeatedly argued to the Patent Office that each claimed design provides an "overall appearance [of] an elegant and streamlined series of concentric circles" and Apple disclaimed "a bulky assembly of shapes." JCCC, Ex. C at 84, 220, 315. In this case, again to distinguish prior art, Apple and its expert repeatedly described each claimed design as including a "concentric circular arrangement" (*see, e.g.*, D.I. 51 (22-1377), Ex. M ¶¶113, 117, 121) and providing a "streamlined, elegant concentric circle impression" (*see, e.g.*, Masimo Ex. 16 at 13, 43, 70). Masimo's construction includes these characterizations.



D'279, D'842, D'936 Patents at FIG. 4

ii. The Charger Design Patent (D'131)

Terms A-20, A-21, A-22, A-24, A-25: D'131 claims an overall cylindrical shape with substantially rounded edges (A-20, A-22, A-25). Masimo Ex. 14 ¶57. The figures show that the cylinder's sidewall is perpendicular to its top and bottom surfaces (A-21), and that its bottom surface is flat (A-24). *Id.*



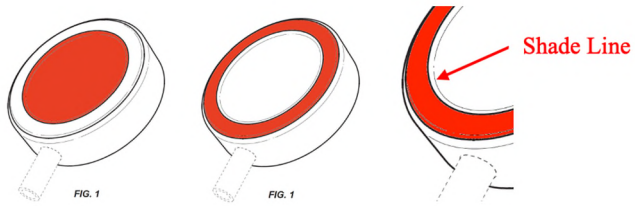
To distinguish prior art, Apple argued in this case that "[t]he D'131 Patent's protected design includes" various "design elements" including: "[a]n overall cylindrical shape . . . [with] curved edges between the sidewall and the top and bottom surfaces" and "[a] flat, featureless bottom surface." Masimo Ex. 16 at 93.

The cylindrical shape, flat bottom surface, and rounded edges are functional. Masimo Ex. 15 ¶¶173-76. Functions of those features include providing the best design for housing a cylindrical power transmission coil, making the charger easier to use on a flat surface (such as a table or desk), ensuring proper alignment between the charger and watch, and improving user

comfort when handling the charger. *Id.* Apple's concomitant utility patents and the prior art demonstrate that such features are functional. *Id.*

Because these elements are functional, the construction should be limited to the ornamental aspects of the design. Masimo identified the purportedly ornamental features in its constructions, namely, that the sidewall is perpendicular to the top and bottom surfaces, the flat bottom surface has a diameter that is substantially the same as the diameter of the sidewall, and the height of the cylinder is approximately 28% of the diameter formed by its sidewall.

Terms A-22, A-23: D'131 claims a short, wide, flat ring on top of the cylinder (A-22) surrounding a featureless circular recessed center portion (A-23). Masimo Ex. 14 ¶58. The figures show that the ring has a smaller diameter than the cylinder's sidewall. *Id.* The figures also show that the ring has a rounded outer edge that meets the cylinder's top surface at a right angle. *Id.* Further, the figures use a single shade line (labeled above) to show that the center portion is recessed from the surrounding ring. *Id.*; *see, e.g.*, D'131 at FIGS. 1, 3, 9; JCCC, 28 (agreeing that "shade lines in the figures show contour"). Because the figures show the recessed center portion as a featureless surface, it has a flat surface, not a concave recess as Apple argues. Masimo Ex. 14 ¶58.



To distinguish prior art, Apple argued in this case that a "recess" and "a ring" are elements of "[t]he D'131 Patent's protected design." Masimo Ex. 16 at 93. Apple now argues it claimed a "concave recess," but D'131 shows that recessed portion as a flat surface, as explained above. Masimo Ex. 14 ¶58.

A circular recessed center portion is functional. Masimo Ex. 15 ¶¶177-86. A function of the recessed portion is providing the best design to mate the charger snugly with a watch's back surface. *Id.* Apple's utility patents and advertisements confirm this functionality. *Id.*

Because this element is functional, the construction should be limited to the ornamental aspects of the design. Masimo identified the purportedly ornamental features in its construction, namely, that the circular recessed center portion is featureless and not a concave recess.

A short, wide, flat ring is also functional. *Id.* ¶¶187-89. A function of the ring includes ensuring that the charger's top surface matches the watch's back surface to properly align the charger and watch. *Id.* Alternative designs would not work well because the charger would not mate with the watch's back surface and could cause the charger and watch to disconnect. *Id.*

Because this element is functional, the construction should be limited to the ornamental aspects of the design. Masimo identified the purportedly ornamental features in its construction, namely, that the ring has a rounded outer edge that meets the top surface of the cylinder at a right angle, and with the proportions illustrated in the figures.

iii. Proportions (Terms A-4, 5, 8-10, 15-16, A-22, A-25)

Masimo's constructions include proportions that identify the purportedly ornamental relative size and relationship of various elements. Masimo calculated them from each patent's figures. Masimo's expert provides further details on the methodology for these calculations. Masimo Ex. 14 ¶¶47-52, 59-64.[6] Apple does not challenge the numerical accuracy of these proportions.

To distinguish prior art, in the IPRs and in this case, Apple described the claimed designs by referring to their "proportions" and repeatedly argued that such proportions distinguish the

[6] For Term A-4, the height of the protrusion is approximately 10% of the diameter of the protrusion, not 12% as Masimo initially proposed. Masimo Ex. 14 ¶52.

designs from the prior art. JCCC, Ex. C at 69-70, 83, 85, 97, 105, 110, 193-194, 221, 243, 257, 263, 286, 317, 338, 351, 358; Masimo Ex. 16 at 12, 14, 24, 26, 33-34, 42, 44, 53, 55, 61-62, 69, 71, 80, 82, 87-88. Apple specifically represented in this case that "proportions" are an element of "[t]he D'131 Patent's protected design" and repeatedly attempted to distinguish the prior art based on the "proportions of the patented design." *See, e.g.*, Masimo Ex. 16 at 93, 153.

The Court should include the claimed designs' proportions by adopting Masimo's constructions. Alternatively, the Court could specify the claimed designs have the proportions shown in the figures.

f) Masimo's Constructions Properly Account For The Arrangement And Overall Appearance Of The Claimed Designs

Apple argues that Masimo's proposed constructions allegedly place undue emphasis on certain design elements. *Supra* at 4-6. Apple is wrong for multiple reasons.

First, the Court can eliminate any risk of unduly emphasizing individual elements by instructing the jury that the claimed designs should be understood in view of all the figures and constructions, and that the jury should not give more weight to particular elements.

Second, Apple's argument regarding arrangements and proportions is inconsistent with Apple's arguments in this case, and before the Patent Office, that the "claimed designs" include the relative arrangements and proportions of elements. *See, e.g.*, Masimo Ex. 16 at 8-9 (detailing multiple "arrangement[s]" of "[t]he D'279 Patent's protected design"), 12 (raising "proportions" of D'279's claimed design as alleged distinction over prior art), 93 (identifying proportions as part of D'131's "protected design"); JCCC, Ex. C at 281-87 (specifying arrangements and proportions of various elements). Apple also asks the Court to ignore its expert's opinion that the claimed designs include the relative arrangement and element sizes. D.I. 51 (22-1377), Ex. M ¶¶113, 117, 121.

Third, Apple ignores that the Federal Circuit has approved design patent constructions specifying the relative arrangement, sizes, and proportions of elements. *See, e.g.*, *OddzOn*, 122 F.3d at 1401, 1405 (affirming construction detailing relative arrangement and sizing of ball's "tailshaft" and "three fins"); *Z Produx, Inc. v. Make-Up Art Cosms., Inc.*, 2013 WL 5941049, at *5-6 (C.D. Cal. Nov. 5, 2013), *aff'd*, 568 F. App'x 897 (Fed. Cir. 2014) (adopting detailed construction including "the overall proportions depicted in its drawings").

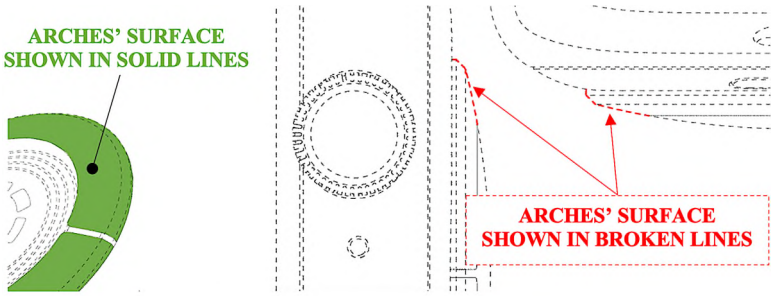
Apple also argues that, by addressing the "overall appearance" of the claimed designs, Masimo's constructions could place undue emphasis on certain elements. *Supra* at 5. Again, Apple contradicts its positions in this case, and before the Patent Office, that the designs should be construed as conveying a specific overall appearance. *See, e.g.*, Masimo Ex. 16 at 11 ("The overall visual impression of the D'279 Patent includes an arrangement of multiple concentric circles implied through the various design elements."), 93-95 (including the "overall cylindrical shape" and other elements in D'131's "protected design"); JCCC, Ex. C at 281-87 (claimed design has "overall appearance of multiple concentric circles, evoking a bulls-eye, target, or ripples in a pond.").

g) <u>The D'842 and D'936 Claimed Designs Are Indefinite (Term A-14)</u>

A design patent is indefinite if the "inconsistencies in [its] drawings are of such magnitude that the drawings, taken as a whole, fail to inform, with reasonable certainty, [a designer of ordinary skill in the art ("DOSA")] about the overall appearance of the design." *Supra* at 7 (citing *Deckers Outdoor Corp. v. Romeo & Juliette, Inc.*, 2016 WL 7017219, at *3-4 (C.D. Cal. Dec. 1,

2016)); M.P.E.P. § 1503.02. The Federal Circuit has held that "internally inconsistent drawings" can render a design patent indefinite.[7] *In re Maatita*, 900 F.3d 1369, 1375 (Fed. Cir. 2018).

The rear perspective views (FIG. 2) of D'842 and D'936 use **solid lines** to depict the arches' surface (which has cylindrical, chamfered, and convex portions). That surface protrudes from the device's bottom. Apple argues the patents claim arches having protruding surface along their length (shown in green). *Supra* at 7-8 ("the 'shape of the surface of the arches' is claimed").



D'842 Patent at FIG. 2 **FIG. 6** **FIG. 8**

But the other relevant figures—side views (Figures 5-8)—use **broken lines** to depict the surface of the arches along their length. Figures 5-8 are thus inconsistent with Figure 2 as to whether the protruding surface of the arches is claimed.

Masimo's industrial design expert explained that a DOSA viewing the claimed designs as an ordinary observer would find this inconsistency material to understanding the claim scope. Masimo Ex. 14 ¶¶77-85. A DOSA would also expect elements shown in solid lines in ordinary rear views (FIGS. 2, 4) to be shown in solid lines in ordinary side views (FIGS. 5-8). *Id.* ¶81; *see, e.g.*, *Times Three Clothier, LLC v. Spanx, Inc.*, 2014 WL 1688130, at *7 (S.D.N.Y. 2014) (neither set of contradictory ordinary front and side views, "can be disregarded as unclear due the use of an unusual perspective"). Because the figures are inconsistent with each other, a DOSA would

[7] To focus the claim construction disputes, Masimo does not present its indefiniteness arguments as to Terms A-2 and A-19.

not be able to determine which figures (FIGS. 2, 4 or FIGS. 5-8) show what is claimed. Masimo Ex. 14 ¶81.

Apple and its expert arbitrarily focus on "rear views" as "the optimal views to determine" what is claimed. *Supra* at 7; Apple Ex. 11 ¶¶93-94. But Apple's approach does not explain how a DOSA would resolve the ambiguity between the different figures. *See* Masimo Ex. 14 ¶83; *see, e.g.*, *Deckers*, 2016 WL 7017219, at *4 (indefiniteness assesses "the drawings, ***taken as a whole***").

Apple argues that the figures somehow show that the surface of each arch has a cylindrical portion, chamfered edge, and a convex portion. *Supra* at 7-8. But those arch features are not shown with any solid lines around each arch. Apple attempts to explain away the lack of solid lines by asserting the dashed lines are "unclaimed elements (like the 'circular protrusion')" based on its expert's declaration. *Supra* at 7. However, Apple's expert (Ball) relied on ***a different patent*** (D'279) rather than anything shown in D'842 or D'936. Apple Ex. 11 ¶93. Apple presents no rationale or legal authority for relying on D'279 to reveal what D'842 and D'936 claim.

Apple's new interpretation of the arches based on the broken lines is confusing and unconventional to the ordinary observer. Masimo Ex. 14 ¶84. Apple also ignores that, "when broken lines are used, they should not intrude upon or cross the showing of the claimed design." M.P.E.P. § 1503.02(III). If Apple had intended to claim the surface of the arches, and indicate the protrusion was not claimed, it could have done so. Apple could have used broken lines for the portion of the convex protrusion between the arches, omitted the oblique shading lines associated with the surface of the protrusion, and then showed the claimed shape in solid lines. Instead, Apple used broken lines for the arches' shape.

Apple's expert also tries to explain away the inconsistency by opining that the side view figures alone are adequate. He argues that "[a] solid line forming the claimed shape of the surface

of the arches in a two-dimensional render would correspond to and be indistinguishable from a dashed line forming [the protrusion of D'279] because of the immediate proximity of those two lines." Apple Ex. 11 ¶93; *supra* at 8 (citing same). But the side views (FIGS. 5-8) obscure any understanding by showing the surface of the arches in broken lines and, therefore, not claimed. Masimo Ex. 14 ¶¶77, 81, 84-85. To the extent Apple had intended to claim the arches' surface, the patents needed to include "other figures which fully disclose the subject matter of the claimed design." M.P.E.P. § 1503.02(III). The patents lack any such figures. Masimo Ex. 14 ¶85.

The arches' surface is a visually significant element of the claimed designs. Masimo Ex. 14 ¶78. Indeed, Apple has repeatedly argued that the arches are "prominently visible," "readily observable features" that appear to "protrude upward from the outermost circle." JCCC, Ex. C at 280-86, 189-94; *see id.* at 68-71. Accordingly, a DOSA reviewing the patents as a whole would not understand, or be able to determine, with reasonable certainty whether the arches' surface is claimed in D'842 or D'936. Masimo Ex. 14 ¶¶22, 82. Therefore, D'842 and D'936 are indefinite. *Id.*; *see, e.g.*, *Times Three*, 2014 WL 1688130, at *7-9 (design patents indefinite because figures were inconsistent as to material aspects of claimed design).

3. Apple's Reply Position

a) Masimo's Verbal Descriptions Are Unnecessary and Improper (Terms A-1, A-3 to A-13, A-15 to A-18, A-20 to A-25)

i. Supplementing the patents' figures with verbal descriptions serves no purpose and would only add "undue emphasis" on particular features

The Court should reject Masimo's proposed verbal descriptions of the claimed designs and instead adopt Apple's proposals because they reflect the Federal Circuit's guidance that design constructions should refer to the figures themselves. *Crocs*, 598 F.3d at 1302. Masimo's proposed constructions comprise ***over 1,400 words*** and illustrate the Federal Circuit's concerns

precisely. For example, Masimo proposes hundreds of words for individual elements that are easy to comprehend visually, thereby improperly emphasizing discrete elements over the overall visual impression of the entire claimed design.[8] Masimo's proposals should be rejected.

Masimo's cases do not justify its approach to claim construction in this case. Contrary to Masimo's suggestion, the Federal Circuit did not depart from its cautionary advice in *Lanard Toys* or *High Point Design*. In *Lanard Toys*, the district court did not "undertake a detailed written description of the [design] patent" but "relie[d] on [the] exemplary drawings." *Lanard Toys Ltd. v. Toys "R" Us-Delaware, Inc.*, 2019 WL 1304290, at *11 (M.D. Fla. Mar. 21, 2019). Even when the Court noted ornamental aspects not dictated by function, such as the "specific proportional size of these elements," it followed the *Egyptian Goddess* guidance to rely on drawings as opposed to "further description of every ornamental feature." *Id*. at *12. And *High Point Design* is inapposite because it only explains how an ***obviousness analysis***—not claim construction—needs an articulation of the visual impression created by the design in order to create a record for appellate review. 730 F.3d at 1314; *see Deckers Outdoor Corp. v. Rue Servs. Corp.*, 2014 WL 12588481, at *3 (C.D. Cal. Aug. 29, 2014) (concluding the *High Point Design* treatment of obviousness does not override "the Federal Circuit's clear preference that district courts refrain from issuing detailed written claim constructions in the design patent context"). Finally, although the Federal Circuit found "no inaccuracy" in the *Egyptian Goddess* district court's 117-word construction (which is less than 1/10 the length of Masimo's proposal here), it did not endorse that effort: "Yet it is not clear that the considerable effort needed to fashion the verbal description contributed enough to

[8] Masimo reveals its improper approach by proposing a jury instruction "that the claimed designs should be understood in view of all the figures and constructions, and that the jury should not give more weight to particular elements." *Supra* at 21. But that instruction will not cure the improper effect of Masimo's constructions, which ***themselves*** "give more weight to particular elements."

the process of analyzing the case to justify the effort." *Egyptian Goddess*, 543 F.3d at 680; *see Crocs*, 598 F.3d at 1302 (That effort is not justified "[i]n many cases" because "[d]epictions of the claimed design in words can easily distract from the proper infringement analysis of the ornamental patterns and drawings.").[9]

ii. Masimo's two rationales for verbal constructions do not compel departing from the visual depictions of the patents' figures.

The two arguments Masimo makes for departing from the guidance set forth in *Egyptian Goddess* do not justify its detailed descriptions containing thousands of words. ***First***, Masimo asserts that its constructions are needed because it identified elements in Apple's designs that it claims have functional aspects. That argument relies on a misunderstanding of the law. Because Masimo identifies no design elements that are "***purely*** functional," no construction is needed. *Egyptian Goddess*, 543 F.3d at 680. ***Second***, Masimo asks the Court to adopt detailed constructions because it claims that Apple construed the terms in its IPR papers and validity contentions. But Apple never offered those (or any other) constructions. And the mere fact that Apple used words to refute Masimo's arguments about the patents does not support Masimo's argument that the figures require construction.

(a) None of the design elements are "purely functional"

Masimo's request for detailed constructions simply because a physical embodiment implementing the claimed design may serve a useful purpose fails as a matter of law. *Egyptian*

[9] Masimo also cites *OddzOn Products*, a pre-*Egyptian Goddess* case. *Supra* at 9. There, the Federal Circuit did not endorse overly-detailed descriptions like Masimo's. Rather, it approved of the court below rejecting the comparison of the accused device to the "broader general design concept of a rocket-like tossing ball," finding instead that the patent was limited to "its overall ornamental visual impression" conveyed in a 100-word description. *OddzOn* , 122 F.3d at 1400, 1405.

Goddess explains that a construction may distinguish "between those features of the claimed design that are ornamental and those that are ***purely*** functional." 543 F.3d at 680; *see Ethicon Endo-Surgery, Inc. v. Covidien, Inc.*, 796 F.3d 1312, 1333 (Fed. Cir. 2015) (same "purely functional" standard); *Shure Inc. v. Clearone, Inc.*, 2020 WL 6074233, at *2-*4 (D. Del. Oct. 15, 2020) (in claim construction, asking if features are "***dictated by*** this function (i.e., are either or both of these elements '***purely*** functional')"). Masimo cannot prove that the design elements it identifies are ***dictated by*** function or ***purely*** functional.

First, for each so-called "functional" design element, Masimo improperly interprets the patented designs in view of the commercial embodiments. For example, Masimo presupposes that the "arches depict the ECG electrodes on the back of the Apple Watch Series 4" and that the "four-sided shapes . . . depict the photodiodes of the optical sensor inside Apple Watch Series 4." *Supra* at 15, 16. But the drawings do not ***require*** the arches to be "ECG electrodes," or the four-side shapes to be "photodiodes," and it is impermissible to "use the limitations of the commercial embodiment of the underlying article of manufacture to impose limitations on the scope of the design patent." *Berry Sterling Corp. v. Pescor Plastics, Inc.*, 122 F.3d 1452, 1455 (Fed. Cir. 1997) (vacating functionality analysis that relied on the design patent's commercial embodiment).

Second, for each element it identifies, Masimo falls short of the legal requirement to demonstrate functionality—that the element is ***purely*** functional or ***dictated by*** function. Instead, Masimo identifies "functions" in the commercial embodiment without showing that there are no other designs that could perform those functions. *See Carlini Enterprises, Inc. v. Paul Yaffe Design, Inc.*, 2014 WL 4060026, at *3 (C.D. Cal. Aug. 15, 2014) (refusing to construe the design of motorcycle handlebars as functional given available alternatives, despite "no dispute that these parts provide some function"). The availability of alternative designs that provide the same

functionalities as Masimo's identifications proves that claimed designs—even where improperly limited to commercial embodiments—are ***not*** purely functional. "The availability of alternative designs is an important, if not dispositive, factor" when assessing functionality. *Shure*, 2020 WL 6074233, at *4 (citing *Ethicon*, 796 F.3d at 1329-30). Yet Masimo ignores the evidence of devices that provide "the same or similar functional capabilities" with differently shaped or arranged features. *Ethicon*, 796 F.3d at 1331; Apple Ex. 45, ¶249 (noting "numerous examples of alternative arrangements of heart rate sensors, photodiodes, electrocardiogram sensors, and chargers"). Apple's expert, Dr. Warren, explains how alternative designs are available for each feature identified by Masimo; therefore, their designs are not purely functional.

- **Term A-3** The "outermost circle" is not "purely functional" because several alternative device designs exist that lack outermost circles but provide Masimo's identified benefits (e.g., user comfort, house internal sensors, and maximal surface area). Apple Ex. 45, ¶¶45-59.

- **Terms A-4, A-5, A-6** For the "protrusion," Masimo ignores the availability of alternative designs. For example, Apple's '157 patent, cited by Masimo's expert, discloses that the "carrier 404" may be "domed-shaped or otherwise non-planar" and "may have different shapes (flat, stepped, parallelepiped, and so on)." Masimo Ex. 15, Ex. Y at 6:11-16. The fact that Apple's watch mates to Apple's charger does not make either design "dictated by function" because (1) Apple could vary the proportions of the watch to fit other chargers, Apple Ex. 45, ¶¶108, 139 and (2) the aesthetic design of products intended to complement each other does not render a design purely functional. *See Auto. Body Parts Ass'n*., 930 F.3d at 1319 ("We hold that, even in this context of a consumer preference for a particular design to match other parts of a whole, the aesthetic appeal of a design to consumers is inadequate to render that design functional.").

- **Terms A-8, 15** Numerous ECG design alternatives confirm that the "arches" are not "purely functional." Apple Ex. 45, ¶¶75-84. For example, Apple's utility patents do not require a specific arrangement of two electrodes, but instead describe alternatives, including that "a single electrode or more than two electrodes may be used," and that several electrode locations are possible so as "not to interfere with optical communication" including "e.g., at the periphery of the carrier 404 ***or in other locations***." Masimo Ex. 15, Ex. Y at 13:21-24, 54-59.

- **Term A-9** In addition to available, alternative designs, *see* Apple Ex. 45, ¶¶89-104, Apple's utility patents confirm that there is no functional requirement for the particular "broken-circular shape" arrangement. Apple Ex. 45, ¶99 (citing '157 patent at 15:34-37, referring to "***one or more*** light receivers (e.g., photodetectors, such as ***photodiodes***)").

- **Term A-10** While Masimo identifies the element in Apple's commercial embodiment as a single, centered "Fresnel lens," it fails to show that the particular design and arrangement

shown in the D'279 Patent is "purely functional" and ignores the availability of alternative designs achieving the same or similar function. *See id.*, ¶¶146-162. Masimo's identified utility references do not ***require*** a singular, centered Fresnel lens comprising "twenty concentric circles"—instead, those references teach many alternative designs for the same function, including a "diffuser film," and multiple, stacked Fresnel lenses. *Id.*, ¶159 ("[T]he lens 436 may be or include a Fresnel lens, a spherical lens, a diffuser film, or the like.") (quoting Masimo Ex. 15, Ex. Y at 14:50-52); *id*., ¶¶149-153 (discussing Masimo Ex. 15, Ex. CC, Figure 9B with alternative design of three stacked Fresnel lenses). Fresnel lenses are not even required to have "twenty" concentric circles as Masimo suggests. Apple Ex. 45, ¶161.

- **Terms A-20, A-21, A-22, A-24, A-25** The design elements of the D'131 Patent are not "purely functional." Instead, available, alternative charger designs, including ones housing cylindrical power transmission coils, usable on a flat surface, with watch alignment, etc., prove that Apple's specific charger design is not dictated by function. *Id*. ¶¶163-248.

- **Terms A-22, A-23**[10] The D'131 patent's concave inner surface and the surrounding "ring" are ornamental design choices, as the availability of alternative designs with the same or similar function confirm. *Id*. ¶¶189-248. Similarly, Apple's charger does not require the device-to-be-charged to fit snugly within its recess. For example, the Apple Watch Charger charges the AirPods Pro case, which has a flat back. *Id*. ¶¶211-213.

Given that universe of possible arrangements, the design of Apple's features is clearly not "dictated by function." *See Lifted Ltd., LLC v. Novelty Inc.*, Civil Action No. 16-cv-03135-PAB-GPG, 2020 WL 2747814, at *5 (D. Colo. May 27, 2020).

Furthermore, even if any of the elements Masimo identifies were functional—they are not—Masimo is still incorrect that the Court must replace the visual depictions with thousands of words. *See Carlini*, 2014 WL 4060026, at *1 ("[T]he task of distinguishing the ornamental features from the functional ones must be tempered—a detailed verbal description of the claimed design may place an undue emphasis on particular features of the design and may hinder examination of the design as a whole.").[11]

[10] Masimo is incorrect that the "recessed center portion" has a flat surface. Masimo's expert here asserts that "recessed center portion" of the D'131 patent is "designed to mate and align with the convex surface," pointing to Figures 10 and 11 of the D'131 Patent. Masimo Ex. 15, ¶177.

[11] At most, the Court should simply identify the functional elements. *See Shure*, 2020 WL 6074233, at *6, *9 (noting in construction only that "The square shape of the claimed design is functional.")

(b) Apple never construed the claims when distinguishing prior art

Masimo offers no authority that responding to invalidity assertions with words somehow negates a construction based on the figures. Masimo concedes that there is no disclaimer in the IPR record but insists that Apple's statements can "inform claim construction." *Supra* at 9-10. But absent a disclaimer, the prosecution history does not require claim construction when it "does not provide any 'explanation, elaboration, or qualification' that better 'captures the scope of the actual invention' than the claim language itself." *XMTT, Inc. v. Intel Corp.*, 2022 WL 2904308, at *5 (D. Del. July 22, 2022) (quoting *AstraZeneca AB v. Mylan Pharms. Inc.*, 19 F.4th 1325, 1335 (Fed. Cir. 2021)). Masimo points to no such statements. Rather, ***in response to*** Masimo's requests for verbal constructions in its IPR petitions, Apple offered that any construction must identify all "readily observable features of the claimed design that impact its overall appearance," even though ideally, "***the illustration, rather than a verbal description, is the better representation of the claimed design***." Ex 14, Ex. J at 4; *id.*, Ex. K at 4; *id.*, Ex. L at 3. Likewise, in its response to Masimo's invalidity contentions, Apple noted the *Egyptian Goddess* caution and explicitly stated that it was ***not*** offering constructions—rather, Apple only explained "how the design elements of the claimed design contribute to the design's overall visual impression and how the alleged prior art identified by Masimo differs from the [patents]." Masimo Ex. 14, Ex. N at 7-8. Those statements comprise neither disclaimers nor explanations that "better captures the scope of the actual invention" than the figures of the patents themselves. *XMTT*, 2022 WL 2904308, at *5. The mere fact that Apple used words to refute Masimo's arguments about the patents does not support Masimo's argument that the figures require construction. Indeed, adopting detailed constructions anytime a patentee responds to invalidity arguments—virtually every patent case—would eviscerate the Federal Circuit's guidance against detailed written descriptions of design patents in

most cases. Further, Masimo's proposed constructions are not even quotes from Apple's statements—they are ***Masimo's*** own detailed descriptions. Additionally, Masimo fails to even identify any prior art that is so similar to Apple's patented designs that the Court would be required to highlight particular differences between the designs with a detailed verbal construction. *See Yao-Hung Huang v. Marklyn Grp., Inc.*, 2012 WL 4856720, at *3 (D. Colo. Oct. 11, 2012) (rejecting overly detailed constructions because they were not required to distinguish the prior art).

Apple's statements did no more than identify how particular design elements contributed to the overall visual impressions of the claimed design, but were absent in Masimo's prior art:

- **Terms A-8, A-15** Apple explained how the "arches" contribute to the overall visual impression of the designs, in contrast to the alternatives Masimo offered as prior art which lacked the same overall visual impressions. *See, e.g.*, Masimo Ex. 14, Ex. N at 8, 11-12; *id*., Ex. J at 30. Masimo now proposes nearly 200 words to describe the "arches," a feature readily apparent in the figures.

- **Term A-9** Apple never argued that the patents require a construction of the "inner broken-circular shape" or the "four-sided shapes." Rather, Apple identified that element as a design feature with no analogue in Masimo's identified prior art, which reflects alternative arrangements of photodiodes. *See, e.g.*, Masimo Ex. 14, Ex. N at 8, 11-12; *id*., Ex. J at 24.

- **Term A-12** While Apple does explain that the patents reflect an overall appearance that includes an elegant and streamlined series of concentric circles in opposition to the prior art's bulky shapes, Masimo provides no authority to require the Court to adopt Apple's explanation as a construction. As explained in the opening brief, while the Federal Circuit does compare the overall impression of a design to the prior art and accused devices, it does not incorporate that impression into the construction. *See Crocs*, 598 F.3d at 1303, 1306.

- **Terms A-20, A-21, A-22, A-24, A-25** Masimo here identifies no more than the fact that Apple used words to describe how the prior art lacks features found in the D'131 Patent that contribute to the protected visual impression. Those elements are readily apparent in the patent's figures.

- **Proportions (Terms A-4, 5, 8-10, 15-16, A-22, A-25)** First, these lengthy calculations are Masimo's own—Apple has consistently held that the figures themselves showcase the elements' proportions. Masimo concedes that its lengthy calculations are unnecessary in view of the figures. But the Court does not need to "specify [that] the claimed designs have the proportions shown in the figures" because the figures inherently include how the proportions' contribute to the overall visual impression. Moreover, Masimo cannot now argue for mathematically precise ratios when its expert previously argued that a "DOSA would have understood" that these patents do "not claim specific dimensions." Apple Ex. 48, ¶88; Apple

Ex. 49, ¶78; Apple Ex. 50, ¶67.[12]

(c) Masimo provides no justification for its remaining terms

Masimo provides no rationale for its verbal construction of two terms:

- **Term A-7** Other than noting the parties' agreed construction for the oblique lines, Masimo offers no rationale for why a further construction of the "convex dome" is needed. None is.
- **Term A-11** Masimo offers no justification for why a verbal description of the "three parallel lines" is needed as a replacement to the figures themselves. There is no justification.

b) The Design Patents' Claims Are Definite (Terms A-2, A-14, A-19)

Masimo concedes that Terms A-2 and A-19 are not indefinite, and therefore the Court's order should include that conclusion. *See Baltimore Aircoil Co. v. SPX Cooling Techs., Inc.*, 2015 WL 5102872, at *5 (D. Md. Aug. 28, 2015) (finding waiver when a party proposed indefiniteness arguments and then did not brief them) (citing *SSL Servs., LLC v. Citrix Sys., Inc.*, 769 F.3d 1073, 1085 (Fed. Cir. 2014)). Masimo's remaining challenge, Term A-14, should be rejected. Masimo's selective citation from the M.P.E.P. reads in full:

> Where a broken line showing of environmental structure must necessarily cross or intrude upon the representation of the claimed design and obscures a clear understanding of the design, such an illustration should be included as a separate figure in addition to the other figures which fully disclose the subject matter of the design.

M.P.E.P., § 1503.02(III). The D'842 and D'936 patents do exactly that: because the broken lines representing the unclaimed "protrusion" "necessarily cross or intrude" on the claimed design, the patent includes separate figures (e.g., Figures 2 and 4) with additional views that "fully disclose

[12] Masimo also cites *Z Produx, Inc. v. Make-Up Art Cosms., Inc.*, 2013 WL 5941049 (C.D. Cal. Nov. 5, 2013) as its only post-*Egyptian Goddess* example where "the Federal Circuit approved design patent constructions specifying the relative arrangement, sizes, and proportions of elements." *Supra* at 22. The citation is misleading. While Masimo's parenthetical reads "adopting detailed construction including 'the overall proportions depicted in its drawing,'" the district court's "detailed construction" is ***less than 50 words*** and ***refers to*** the patent's drawing, as opposed to ***"specifying"*** any proportions as Masimo argues. 2013 WL 5941049, at *6.

the subject matter of the design"—i.e., Figures 2 and 4 fully disclose that the "arches" are claimed. *See* Apple Ex. 11, ¶¶93-95; *Deckers*, 2016 WL 7017219, at *4 (noting that a DOSA looks to "the drawings that provide the clearer—not the more obscured—view" of elements to determine what is claimed). And a DOSA reviewing the claimed designs in view of all the provided figures would understand that scope with "reasonable certainty." *Id*.

4. Masimo's Sur-Reply Position

a) Verbal Descriptions Are Appropriate Here

Apple never disputes that Masimo's constructions accurately describe the elements in the figures. *See supra* at 25-26, 31-32. Rather, Apple argues, without support or explanation, that constructions are not needed because the individual elements "are easy to comprehend visually" and Masimo "improperly emphasiz[es]" "particular elements." *Supra* at 26 & n.8.

But the claimed designs are not easy to comprehend visually. Apple needed three patents and 27 figures to claim the watch designs, and 11 figures to claim the charger design. The figures use various Patent Office drawing conventions in the patents, none of which would be familiar to the average juror. Both parties have needed to examine and explain magnified high-resolution images because the claimed designs are not visually apparent from the patents. Apple's expert needed dozens of pages and numerous graphical annotations to explain the claimed watch designs. D.I. 51 (22-1377), Ex. M at 31 ("I have included images that have been magnified or reduced in size, cropped, juxtaposed, colored and/or annotated."). And yet Apple says the jury need look only at the figures. No juror would understand the shape of the arches' surface, the configuration of the 20 recessed concentric circles (Fresnel lens), or the charger cavity without explanation.

Masimo's constructions do not risk encouraging the jury to place "undue emphasis" on any "particular features." *Supra* at 26. Masimo proposed constructions for ***all*** elements of the claimed designs without emphasizing any of them. JCCC at 2-19. Masimo also includes that: "The ***overall***

appearance of the claimed design is an elegant and streamlined concentric circle appearance, rather than a bulky assembly of shapes." JCCC at 11 (A-12).

Detailed claim construction is necessary in this case for multiple reasons. Apple's infringement and invalidity arguments depend upon ignoring elements of the claimed design. For example, Apple redefines the 20 recessed concentric circles (Fresnel lens) in D'279 as merely a "central circular shape" or "central round shape." D.I. 51 (22-1377), Ex. M ¶140; Masimo Ex. 16 at 8-9; JCCC, Ex. C at 284. Apple also omits the six parallel lines between the edges of the arches in all three watch patents. *See* D.I. 51 (22-1377), Ex. M ¶¶49-50, 61-62, 73-74; Masimo Ex. 16 at 8-9, 39-40, 66-67; JCCC, Ex. C at 281-87, 189-94, 68-71. Claim construction is also necessary because where, as here, the depicted design includes "'functional and non-functional elements, the scope of the claim ***must be construed*** in order to identify the non-functional aspects of the design as shown in the patent.'" *Sport Dimension*, 820 F.3d at 1320; *Shure*, 2020 WL 6074233, at *2. Claim construction is further necessary to prevent Apple from making inconsistent arguments. Apple's description of the claim scope has already changed from its expert's infringement analysis, to its validity contentions, to its arguments to the Patent Office. Indeed, Apple's briefing inconsistently argues that A-10 should not be construed as including 20 concentric circles, while arguing the "particular design and arrangement shown in the D'279 Patent" establishes non-functionality. *Supra* at 30 ("Fresnel lenses are not even required to have 'twenty' concentric circles").

Apple's fixation on the number of words in Masimo's constructions is unhelpful. No case, including *Egyptian Goddess*, evaluates the propriety of a construction based on the number of words. Apple's attribution of more than 1,400 words to Masimo's constructions is also incorrect.

Apple never explains how it came up with its number.[13] Apple appears to have double-counted similar elements in the three watch patents and included words not part of Masimo's construction. Apple then compares its overstated cumulative word count for four patents to the length of constructions in cases addressing single patents. Apple also never mentions that it used hundreds of words to describe the claimed designs before this Court and the Patent Office.

b) Apple Fabricates The Functionality Test

Apple does not dispute that Masimo and its expert accurately identified the functions of the claimed design elements. Rather, Apple incorrectly argues that, if "alternative designs that provide the same functionalities as Masimo's identifications" exist or ***could be possible*** then it "proves that claimed designs . . . are not purely functional." *Supra* at 28-29. That is not the law. Alternative designs are only one of many factors. *Id.* at 11; *Auto. Body Parts*, 930 F.3d at 1319 ("the presence or absence of alternative designs" is "not dispositive"). Indeed, "[t]he presence of alternative designs may or may not assist [in the functionality analysis]." *Berry Sterling*, 122 F.3d at 1456. Apple ignores decisions finding that design elements were functional despite the existence of alternative designs. *See, e.g.*, *Golden Eye Media USA, Inc. v. Evo Lifestyle Prod. Ltd.*, 2022 WL 2232517, at *2 (Fed. Cir. June 22, 2022); *Dyson, Inc. v. SharkNinja Operating LLC*, No. 1:14-cv-00779, 2016 WL 6037688, at *3 (N.D. Ill. Oct. 13, 2016). Apple relies on *Shure* for alternative designs being "important, if not dispositive," *supra* at 29, but the court there found other factors outweighed the existence of alternative designs. 2020 WL 6074233, at *3-4.

Courts use five other factors to determine whether a design element is "dictated by function." *Sport Dimension*, 820 F.3d at 1322; *Berry Sterling*, 122 F.3d at 1455. Apple ignores

[13] Masimo's constructions are 715 words for all three watch patents combined, including double counting similar elements and 206 words for the charger patent. So even if the number of words mattered (it does not), these word counts are comparable with prior cases.

all those other factors and does not dispute the evidence from Masimo and its expert applying those factors. *Supra* at 29-31. For example, Apple cannot address the testimony of its own engineer (Land) that functional considerations drove the design of Apple's commercial embodiment. Masimo Ex. 42 at 103:5-13. Apple's expert now imagining "possible" alternative designs does not outweigh the factors and evidence showing the design elements are dictated by function.

Masimo properly refers to commercial embodiments to identify the intended function of elements ***depicted in the claimed designs*** (e.g., the arches). *Supra* at 11-21. Apple argues that "Masimo improperly interprets the patented designs in view of the commercial embodiments." *Supra* at 28. Apple is wrong for three reasons. First, the Federal Circuit has repeatedly approved looking to commercial embodiments when evaluating functionality. *See Ethicon*, 796 F.3d at 1333-34; *OddzOn*, 122 F.3d at 1405-06; *Richardson*, 597 F.3d at 1290-94. Indeed, Apple's own case recognized that, "pursuant to Federal Circuit guidance in cases such as *OddzOn* [], a court does not need to 'limit [itself] to the face of the patent disclosure' to define the function(s) of a claimed design." *Shure*, 2020 WL 6074233, at *3. Second, Apple's argument inaccurately characterizes *Berry* as prohibiting use of commercial embodiments in evaluating functionality. *Supra* at 28. *Berry* held no such thing. *Berry* held that a commercial embodiment cannot be used to "to impose limitations on the scope of the design patent[,]" 122 F.3d at 1455, which Masimo never did. Third, Masimo appropriately referenced Apple's commercial embodiments because Apple expressly relied on comparisons to Apple's products to support its arguments for both infringement and validity (including functionality). *See generally* Masimo Ex. 48; Masimo Ex. 16 at 178-97; *see also L.A. Gear, Inc. v. Thom McAn Shoe Co.,* 988 F.2d 1117, 1125-26 (Fed. Cir. 1933) ("When the patented design and the design of the article sold by the patentee are

substantially the same, it is not error to compare the patentee's and the accused articles[.]").

c) Apple Construed the Claims to Distinguish the Prior Art

Apple also argues that it "never construed the claims when distinguishing prior art." *Supra* at 31-33. Apple's own brief shows it is mistaken. For example, when discussing Terms A-8 and 15, Apple admits it explained how the "arches" elements contribute to the overall visual impression "in contrast to the alternatives Masimo offered as ***prior art***." *Supra* at 32. With respect to A-12, Apple admits it explained that its patents "reflect an overall appearance that includes an elegant and streamlined series of concentric circles in opposition to the ***prior art's*** bulky shapes." *Id.* at 32. Similarly, for Terms A-20, 21, 22, 24, and 25, Apple admits it "used words to describe how the ***prior art*** lacks feature found in the D'131 Patent . . .." *Id.* The extent to which these allegedly distinguishing features also contribute to the overall visual impression in no way diminishes that Apple relied on verbal descriptions of these elements to distinguish the prior art.

The Court should adopt Masimo's constructions because they would help the jury understand the claimed designs, would distinguish the claimed ornamental features from unprotectable functional elements, and it is undisputed they accurately describe the figures.

d) The D'842 and D'936 Patents Are Indefinite

Terms A-2 and A-19: Masimo did not "concede" these terms are not indefinite or waive the defense for these terms. *Supra* at 33. Masimo did not need to raise all indefiniteness arguments during claim construction. *See, e.g.*, *TQ Delta, LLC v. 2Wire, Inc.*, 373 F. Supp. 3d 509, 523 (D. Del. 2019); *Leader Techs., Inc. v. Facebook, Inc.*, 770 F. Supp. 2d 686, 708 (D. Del. 2011), *aff'd*, 678 F.3d 1300 (Fed. Cir. 2012). Masimo preserved its indefiniteness arguments for these terms by including them in its invalidity contentions.

Term A-14: A DOSA would not be able to determine with reasonable certainty whether the patents claim the arches' surface. Masimo Ex. 14 ¶¶77-85. Apple concedes that Figures 5-8

do not show the arches' surface is claimed. *See supra* at 33-34. Apple argues that the surface is claimed but obscured in those figures by broken lines depicting unclaimed features. *Id.* If Apple were correct, it would have needed to include "other figures which fully disclose" the arches' surface in solid lines unobscured by unclaimed features. M.P.E.P. § 1503.02(III). Apple incorrectly argues that Figures 2 and 4 are those other figures. *Supra* at 34. They are not. The portion of the arches' surface that is supposedly obscured by broken lines in Figures 5-8 is also shown in broken lines in Figures 2 and 4. No figure unambiguously shows the arches' surface in solid lines unobscured by broken lines. Because Figure 2 suggests the arches' surface is claimed, Figures 5-8 indicate it is not, and Figure 4 does not resolve this inconsistency, the figures are materially inconsistent. This renders D'842 and D'936 indefinite. Masimo Ex. 14 ¶¶77-85; *see Times Three*, 2014 WL 1688130, at *7.

C. Construction of the Apple Utility Patents

1. "embedded in" ('257 Patent, Claim 1)[14]

a) Apple's Opening Position

Apple's Proposed Construction	Masimo's Proposed Construction
plain and ordinary meaning	set firmly into and surrounded by material

The term "embedded in" is readily understandable and needs no construction. The claims require a "lead" comprising a "pad" that is "embedded in" an enclosure. *See, e.g.*, '257 patent, claim 1. The specification uses "embedded in" consistent with its ordinary meaning. *See, e.g.*, *id.*, 10:28–33 ("one or more leads can be ***embedded in*** . . . the housing."), 9:22–24.

[14] The headings list the claims in which the disputed terms actually appear. The same constructions apply to claims that depend from the listed claims.

Masimo's construction should be rejected for two reasons. ***First***, the specification discloses embodiments where the leads are ***exposed*** to a user and are thus ***not*** "surrounded by material," as Masimo's construction improperly requires. For example, as shown on the right in Figure 4A, the embedded "lead 422" (shown in green) comprising the pad "is ***exposed to the user during use.***" '257 patent, 9:22–24, Fig. 4A.

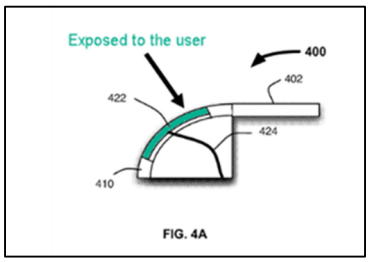


FIG. 4A

Second, Masimo's qualitative limitation-of-degree—"set ***firmly*** into"—adds ambiguity to a straightforward term. How firm must it be set to be considered "embedded"? Accordingly, Masimo's construction should be rejected. *See Osteoplastics, LLC v. ConforMIS, Inc.*, 2021 WL 4452306, at *12 (D. Del. Sept. 29, 2021), *report and recommendation adopted*, 2022 WL 610738 (D. Del. Feb. 14, 2022) (declining to add "precisely" to a construction in part because it did not clarify anything for the jury and introduced ambiguity into the plain meaning); *Eis, Inc. v. Intihealth Ger GMBH*, 2023 WL 346631, at *15 (D. Del. Jan. 9, 2023) ("EIS's proposed construction ["enclosed cavity"] also risks introducing undesired ambiguity as to the degree the cavity is 'enclosed.'").

b) Masimo's Answering Position

The specification supports construing "embedded in" to mean "set firmly into and surrounded by material." The specification describes ECG leads "embedded ***in*** or behind display," "embedded directly ***in*** bezel 310," or "embedded ***in*** … the housing." '257 patent at 8:41, 8:67-9:1, 10:28-29. The specification also describes an "embedded heart sensor lead … placed ***within*** the thickness of bezel 460." *Id.* at 9:36-57.

The file history also supports Masimo's construction. During prosecution, Apple distinguished Weiss as disclosing electrodes "mounted on" a structure rather than "embedded in" it. *Id.* Thus, "embedded in" must be construed to be more than merely "mounted on."

The dictionary definitions of "embedded" and "in" also support Masimo. "Embedded" means "***enclosed*** closely in or as if in a matrix: ***set firmly into*** a mass or ***material***" and enclosed means surround. Masimo Ex. 17. This definition provides nearly verbatim support for Masimo's construction. *See* Masimo Exs. 17 and 18 ("in" defined as "inside").

Apple argues that Figure 4A of the '257 patent shows "leads are ***exposed*** to a user and thus ***not*** 'surrounded by material.'" *Supra* at 40 (Apple's emphasis). But the Figure 4A embodiment is not claimed because the specification explains the lead is "embedded ***along*** the outer surface of bezel" and not embedded ***in*** as required by the claim language. '257 patent at 9:22-24.

Apple next relies on *Eis* and *Osteoplastics* to argue that the qualifier "set ***firmly*** into" introduces ambiguity into "embedded in." *Supra* at 40. But in *Eis*, Judge Williams found ambiguity because the construction lacked one of the qualifiers "partially" or "fully." *Eis, Inc. v. Intihealth Ger GMBH*, 2023 WL 346631, at *15 (D. Del. Jan. 9, 2023). The court found an "enclosed cavity" ambiguous because it did not specify whether the cavity was "***partially***" or "***fully*** enclosed." *Id.* Here, Masimo's construction includes the qualifier "firmly" because the lead is in contact with the surrounding material on all sides. In *Osteoplastics*, the court declined to include "precisely" in a construction because that term would not resolve any dispute. *Osteoplastics, LLC v. ConforMIS, Inc.*, 2021 WL 4452306, at *12 (D. Del. Sept. 29, 2021). Here, the construction will resolve the parties' dispute about whether "embedded in" requires more than merely being "mounted on."

c) Apple's Reply Position

Masimo's arguments fail to support its overly narrow construction. Masimo's citations to the specification merely ***use*** the term without defining it as Masimo proposes. *See supra* at 40. And Masimo's characterization of the file history as distinguishing the phrases "mounted on" and "embedded in"—even if correct—similarly do not define "embedded in" as "set firmly into and

surrounded by material" (as Masimo proposes). *See id.*

Without intrinsic support, Masimo turns to a dictionary that defines "embedded" as "enclosed" or "set firmly into a mass or material" in the context of radioactive isotopes—*i.e.*, a context completely unrelated to the patent. *Supra* at 41; Masimo Ex. 17. But that same dictionary more broadly defines "embedded" in the context of a "device or system" as "functioning as part of a larger device rather than as an independent unit or system." Apple Ex. 51.[15]

Masimo next confirms that its construction improperly reads out the preferred embodiment shown in Figure 4A. *Supra* at 41. Specifically, Masimo argues that Figure 4A is an unclaimed embodiment where the lead is "embedded along" but not "in" another component. *Id*. Masimo is wrong for two reasons. ***First***, it is black letter law that a construction "that excludes a preferred embodiment from the scope of the claim is ***rarely, if ever, correct***." *MBO Labs., Inc. v. Becton, Dickinson & Co.*, 474 F.3d 1323, 1333 (Fed. Cir. 2007). ***Second***, Figure 4A plainly shows that the lead 422 (in green) is embedded "in"—not merely "along"—the bezel 410 (in blue). Thus, a POSITA would understand the claims to encompass Figure 4A. Apple Ex. 46, ¶11.

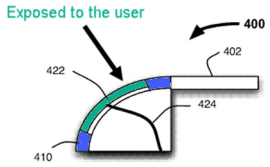


FIG. 4A

Finally, Masimo fails to distinguish *Eis* and *Osteoplastics*. In *Eis*, the court rejected a construction for "enclosed cavity" because it injected ambiguity. *Eis, Inc. v. Intihealth Ger GMBH*, 2023 WL 346631, at *15 (D. Del. Jan. 9, 2023). Masimo's construction—which adds the word "firmly"—introduces precisely that type of ambiguity (how firmly must the lead be set?). Masimo then mischaracterizes Apple's construction to distinguish *Osteoplastics*. Apple contends that "embedded in" should be given its plain and ordinary meaning, which does not require that

[15] Masimo also cites a dictionary that defines "in" as, e.g., "inside" in the context of entering a house. Masimo Ex. 18. But that definition does not equate "in" with "surrounded by material."

something be "set firmly into and surrounded by" material. Apple does not contend that "embedded in" necessarily means "mounted on." Thus, Masimo's construction would not resolve any outstanding disputes. *See Osteoplastics, LLC v. ConforMIS, Inc.*, 2021 WL 4452306, at *12 (D. Del. Sept. 29, 2021).

d) Masimo's Sur-Reply Position

That the parties dispute which dictionary definition is appropriate shows why the Court should construe the term. Apple's dictionary example ignores that the phrase is "embedded ***in***," is far too general, and is contrary to the specification. The specification shows a physical or structural relationship between the leads and the enclosure, not merely a functional relationship as Apple's broader definition would suggest. Apple's definition would encompass embodiments the specification contrasts with "embedded in," such as "behind," "embedded along," and "adjacent to." '257 patent at 8:40-41, 9:22-24, 10:28-29. It would also encompass a distinction made in the file history over prior art leads "mounted on" a housing. JCCC, Ex. C at 380-381, 383; *supra* at 41; Masimo Ex. 22 ¶38. Indeed, Apple admits "embedded in" does not mean "mounted on." *Supra* at 43.

Referring to Figure 4A, Apple ignores that the leads are "embedded ***along***" the bezel, not "embedded in" as Apple asserts. *Supra* at 42-43. The specification contrasts "embedded in" with "embedded along the ***outer surface*** of bezel 410 such that lead 422 is ***exposed*** to the user." '257 patent at 9:22-24. The claims need not cover every embodiment as Apple suggests. *Apple Inc. v. Andrea Elecs. Corp.*, 949 F.3d 697, 708 (Fed. Cir. 2020).

2. "at least the thickness of the second portion is constructed from material having a second conductivity" ('257 Patent, Claim 6)

a) Apple's Opening Position

Apple's Proposed Construction	Masimo's Proposed Construction
not indefinite, and plain and ordinary meaning	This claim phrase is indefinite.

Claims 6 and 7 are straightforward.[16] They require, among other things, an "enclosure" with a "second portion" that has a "thickness." '257 patent, claims 1, 6. That second portion's thickness "is constructed from material having a second conductivity." *Id*., claim 6. There is no ambiguity that it is the "second portion," which is a physical component with a corresponding thickness, that is constructed from the material with the second conductivity. *Id*. That is consistent with how the specification describes the second portion of the enclosure: "By placing several leads at substantially larger distances apart along the electronic device enclosure than the thickness of the enclosure, electronic signals can be transmitted through the steel or aluminum enclosure to a silver based lead underneath the enclosure . . . ." *Id.*, 3:7–12.

Masimo argues that the term is "non-sensical because it purports to specify that a 'thickness'—which is a dimension, not an object—is not [sic] 'constructed from' any 'material,' let alone a material having any 'conductivity.'" Apple Ex. 1 (Masimo Invalidity Contentions), 134. It strains credulity to think that what the claim refers to as "constructed from material having a second conductivity" is anything other than the second portion with its associated thickness. Recognizing the weakness of its position, Masimo argues that even if it is "the 'second portion' that is 'constructed from' the 'material' having the 'second conductivity,' the phrase 'at least the thickness of' has no discernible meaning." *Id*., 134–135. But the claims make clear that the "second pad" is separated from the "exterior surface" by "the thickness of the second portion."

[16] Claim 7 depends from claim 6, which depends from claims 1 and 4. '257 patent, claims 6, 7.

And the disputed limitation simply states that at least the thickness of that second portion must be made of a material with a second conductivity. Put simply, ***more*** than the thickness of the enclosure's second portion can be made of a material with a second conductivity, but ***at least*** the second portion's thickness must be made of a material with the second conductivity. '257 patent, claim 6. Thus, this term is not indefinite.

b) Masimo's Answering Position

A patent claim "is invalid for indefiniteness if" it, "read in light of the specification delineating the patent, and the prosecution history, fail[s] to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014). Here, claims 6 and 7 of the '257 patent are indefinite because a POSITA could not reasonably understand the meaning of "at least the thickness of the second portion is constructed from material having a second conductivity."

Claim 6 depends on Claims 1 and 4. Claim 1 recites that two pads are embedded in two different portions—a first portion and a second portion—of an enclosure. Claim 4 relates to preventing electrical shorts by including, between the first and second portions, a third portion made of low-conductivity material, "a first conductivity." Claim 6 includes a different conductivity limitation: "***at least the thickness*** of the second portion is constructed from material having a second conductivity." A POSITA would have understood that the claimed "thickness" is a dimension of the second portion. But dimensions are not structure made of any material. Thus, the literal language of the claim, which says the "thickness" is "constructed from material," makes no sense and is indefinite. *See Trs. of Columbia Univ. v. Symantec Corp.*, 811 F.3d 1359, 1366-67 (Fed. Cir. 2016); *Allen Eng'g Corp. v. Bartell Indus.*, 299 F.3d 1336, 1349 (Fed. Cir. 2002).

Apple argues "[t]here is no ambiguity that it is the 'second portion' … that is constructed from the material." *Supra* at 44. But Apple ignores the "at least the thickness of" language. In

fact, Apple never explains what the "at least the thickness of" language means. Apple next argues that "***more*** than the thickness of the enclosure's second portion" can have a second conductivity, but "***at least*** the second portion's thickness" must have a second conductivity. *Supra* at 44-45 (Apple's emphasis). This argument is incomprehensible and ignores the import of "thickness."

c) Apple's Reply Position

Masimo's assertion that this phrase is indefinite results from its misguided myopic focus on "thickness" in isolation rather than the claim term in its entirety. *See Tinnus Enters, LLC v. Telebrands Corp.*, 733 F. App'x 1011, 1020 (Fed. Cir. 2018) (courts must read disputed terms "in the context of the surrounding claim language," not "in isolation"). The claim does not require that a dimension be constructed of a material. Rather, a POSITA would understand that the claim refers to the second portion of the enclosure being constructed from a material with a second conductivity. Apple Ex. 46, ¶12. And it is that second portion that has a thickness through which electrical signals can pass. '257 Patent, 3:7–11 ("By placing several leads at substantially larger distances apart along the electronic device enclosure than the thickness of the enclosure, electronic signals can be transmitted through the steel or aluminum enclosure to a silver based lead underneath the enclosure . . . .").[17]

Masimo argues that "Apple ignores the 'at least the thickness of' language." *Supra* at 45-46. But as Apple explained in its opening brief, the phrase "at least the thickness of" means that ***more*** than the thickness of the second portion—such as another component of the electronic device—can be made from a material having the second conductivity. *Id.* at 44-45. But ***at least***

[17] The cases that Masimo cites are inapposite. In *Trs. of Columbia Univ. v. Symantec Corp.*, 811 F.3d 1359, 1366-67 (Fed. Cir. 2016), the court found a claim term indefinite because it described an impossible situation. Here, it is certainly possible for the thickness of a component to be made from a material having a conductivity. In *Allen Eng'g Corp. v. Bartell Indus.*, 299 F.3d 1336, 1349 (Fed. Cir. 2002), the claims were found indefinite because the claim language was in direct conflict with the specification—an argument Masimo has not advanced here.

the thickness of the second portion is constructed from a material having the second conductivity. *Id.* at 45.

d) Masimo's Sur-Reply Position

Apple's explanations ignore the words "the thickness of." First, Apple argues that a POSITA would understand the entire limitation to mean "the second portion is constructed from material having a second conductivity," eliminating the phrase "at least the thickness of." *Supra* at 46-47. Second, Apple argues that "at least the thickness of" means merely that "more than the thickness of the second portion … can be made from the claimed material." *Supra* at 46-47. But that defines only "at least," also eliminating the words "the thickness of." The parties' inability to explain any meaning of "the thickness of" confirms that the limitation is indefinite.

3. "ceramic" ('783 Patent, Claims 1, 3, 6, 8)

a) Apple's Opening Position

Apple's Proposed Construction	Masimo's Proposed Construction
plain and ordinary meaning	made essentially from a nonmetallic, inorganic mineral (such as clay) and hardened by heat

Ceramics, like other basic materials such as metals and wood, are well-understood by POSITAs. *See* Apple Ex. 2 (Characterization of Ceramics (1993)), 11 ("[A] ceramic is any man-made, inorganic, nonmetallic, solid material.") (cited by Masimo in IPR2023-00634). The '783 patent uses the term "ceramic" consistent with its well-understood meaning. *See*, *e.g.*, '783 patent, 10:30–35 (describing various well-known materials, including "plastic, rubber, wood, silicone, glass, ***ceramics***, fiber composites, metal or metal alloys . . . ."); *id.*, 21:56–60; 24:1–12. And as Masimo recognized in its IPR petition, the '783 patent provides several non-limiting and well-known examples of ceramics, such as "sapphire," "zirconia," and "alumina." Apple Ex. 3 (IPR2023-00634, Paper 1), 13 (citing '783 patent, 21:59–60, 26:16–19).

Masimo's construction should be rejected for three reasons. ***First***, nothing in the intrinsic record requires the "ceramic" to be "made essentially from a nonmetallic, inorganic mineral (such as clay) and hardened by heat." Imposing such extensive restrictions is improper where the intrinsic record is devoid of any definition or disavowal. *Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1371 (Fed. Cir. 2014) ("We depart from the plain and ordinary meaning of claim terms based on the specification in only two instances: lexicography and disavowal.").

Second, Masimo's construction in its IPR petition concerning the '783 patent (which uses the same *Phillips* standard as district courts) is inconsistent with Masimo's construction here. In the IPR petition, Masimo argued that "[a] POSITA would have understood 'ceramic' in this context to mean a solid, nonmetallic, inorganic material such as glass or sapphire." Apple Ex. 3 (IPR2023-00634, Paper 1), 13. Masimo did not limit the "ceramic" to a "mineral (such as clay) [that is] hardened by heat," and there is no reason to do so here.

Third, Masimo attempts to read a process limitation—"hardened by heat"—into a product claim. That is improper where, as here, "the patentee has [not] made clear that the process steps are an essential part of the claimed invention." *Cont'l Cirs. LLC v. Intel Corp.*, 915 F.3d 788, 799 (Fed. Cir. 2019) (quoting *Andersen Corp. v. Fiber Composites, LLC*, 474 F.3d 1361, 1375 (Fed. Cir. 2007)).

b) Masimo's Answering Position

The '783 patent lists "ceramic" among several categories of materials: "plastic, rubber, wood, silicone, glass, ceramics, fiber composites, metal or metal alloys …" *See, e.g.*, '783 patent at 10:30-35, 24:2-12. However, the specification does not define or identify all ceramic materials. Though a POSITA would have understood the meaning of "ceramic," a juror likely would not.

Apple agrees that a POSITA would understand "ceramic" to be limited to a "man-made, inorganic, nonmetallic, solid material." *Supra* at 48. But this construction eliminates an essential

aspect of "ceramic." The remaining dispute is whether "ceramic" requires a "mineral (such as clay) and hardened by heat." Masimo's construction is the ordinary meaning of "ceramic." Masimo Ex. 19 (defining "ceramic" as "clay that has been heated to a very high temperature so that it becomes hard"); Masimo Ex. 20 (defining "ceramic" as "any product (such as earthenware, porcelain, or brick) made essentially from a nonmetallic mineral (such as clay) by firing at a high temperature").

Apple argues that Masimo's construction is wrong because the intrinsic record contains no redefinition of "ceramic" or disavowal of claim scope. *Supra* at 48. But Masimo's construction is the ordinary meaning of "ceramic," so redefinition or disavowal is irrelevant. *See AquaTex Indus., Inc. v. Techniche Solutions*, 419 F.3d 1374, 1381-82 (Fed. Cir. 2005).

Apple contends Masimo's IPR construction of "ceramic" does not include "hardened by heat." *Supra* at 48. In the IPR, Masimo asserted that a "POSITA would have understood 'ceramic' in this context to mean a solid, nonmetallic, inorganic material such as glass or sapphire." Masimo's expert also explained: "Ceramic is consistently used to refer to solid, inorganic (e.g., ***mineral***) materials that are not metal and can be ***formed or densified with heat***." Masimo Ex. 21 at 25. Masimo's construction is consistent with Masimo's IPR statements.

Apple further argues that "hardened by heat" improperly reads a process limitation into the claim. *Supra* at 48 (citing *Cont'l Cirs. LLC v. Intel Corp.*, 915 F.3d 788, 799 (Fed. Cir. 2019)). *Continental* merely declined to require a claimed product to be made using the disclosed preferred manufacturing process. Here, "hardened by heat" is a structural attribute of ceramics, which are formed by the process that results in that structural attribute. *See In re Nordt Dev. Co., LLC*, 881 F.3d 1371, 1375 (Fed. Cir. 2018) (terms connoting both structure and manufacturing process are generally construed as structure).

c) Apple's Reply Position

Masimo concedes that a POSITA would understand the meaning of "ceramic" (*supra* at 48-49) but nevertheless melds together several dictionary definitions to advance a construction that requires the ceramic to be "made essentially from … mineral (such as clay) and hardened by heat." *Id.* Masimo's arguments in support of its overly narrow construction fail.

First, Masimo contends that a portion of its construction—"mineral (such as clay) and hardened by heat"—is an "essential aspect" of "ceramic." *Id.* But if that portion of Masimo's construction were truly "essential," it should have been part of the construction Masimo advanced in its IPR petition. Tellingly, it was not. Apple Ex. 3 at 13.

Second, contrary to Masimo's arguments, Masimo's construction is clearly at odds with its IPR statements. Masimo's district court construction requires the "ceramic" to be "made essentially from … mineral (such as clay) and hardened by heat"; Masimo's IPR construction does not. *Id.* Although Masimo's IPR expert—Dr. Duckworth—cited "some literature" stating that a ceramic "***can be*** formed or densified with heat" (Masimo Ex. 21 at 25), Masimo did ***not*** include that requirement in its proposed construction. Apple Ex. 3 at 13. And contrary to Masimo's district court construction, Masimo's expert stated that "[t]he ***ordinary meaning*** of 'ceramic' is . . . 'a solid, nonmetallic, inorganic material.'" Masimo Ex. 21 at 26. Masimo cannot advance a broad construction in the IPR to sweep in prior art, but at the same time advance a narrower construction in district court in the hope of avoiding infringement.

Third, Masimo's reliance on *In re Nordt* does not support inserting a process limitation ("hardened by heat") into the claim. In *In re Nordt*, the Federal Circuit stated that "[i]f the ***process limitation*** connotes specific structure and may be considered a structural limitation, . . . that structure should be considered." *In re Nordt Dev. Co.*, 881 F.3d 1371, 1374 (Fed. Cir. 2018).

Here, "ceramic" is a structural element, and Masimo does not provide any authority for injecting a process limitation into that structure.

d) Masimo's Sur-Reply Position

Apple does not dispute that being heat-hardened is a known attribute of ceramic materials. *Supra* at 50-51; *see* Masimo Ex. 15 ¶194 (Exs. PPP & QQQ). Masimo has already responded to Apple's assertions about Masimo's district court and IPR constructions and about "hardened by heat" being a process limitation. *Supra* at 48-49.

Apple's quote from *In re Nordt* ignores the holding. *Supra* at 50. *In re Nordt* held it was error to ignore a process limitation ("injection molded") that connotes structure. 881 F.3d 1371, 1375 (Fed. Cir. 2018). Here, "***hardened*** by heat" is clearly a structural attribute of ceramic. *See, e.g., Hazani v. ITC*, 126 F.3d 1473, 1479 (Fed. Cir. 1997) ("chemically engraved" is structural).

4. "biosensor module" ('783 Patent, Claims 1, 2, 9, 11, 13, 14, 15, 19; '491 Patent, Claims 7-9, 14-16; '483 Patent, Claims 1, 10)

a) Apple's Opening Position

Apple's Proposed Construction	Masimo's Proposed Construction
module that includes one or more components that detects and/or measures a physiological condition or property	one or more components that sense physiological signals[18]

The parties agree that the biosensor module includes "one or more components." But only Apple's proposed construction accurately captures what those components are configured to do. In particular, consistent with Apple's construction, the specifications explain that the biosensor module "may include one or more light sources, one or more photodetectors, and one or more

[18] In correspondence dated July 24 and 25, 2023 (Apple Ex. 12), Masimo revised the construction that it presented in the JCCC. Accordingly, Apple addresses Masimo's revised construction.

electrodes or conductive elements that are ***configured to detect and measure a physiological condition or property of the user***." '783 patent, 28:17–24[19]; *see also id*., 40:43-50.

In contrast, Masimo's construction improperly limits the "biosensor module" to the "components that ***sense*** physiological ***signals***." That overly narrow construction should be rejected for four reasons. ***First***, the claims recite a "biosensor module" that ***comprises*** various components. *See, e.g.*, '483 patent, claim 1. Masimo's construction improperly limits the "biosensor module" to only the components that "sense physiological signals." But it is black letter law that "the term comprising" means "including ***but not limited to***." *CIAS, Inc. v. All. Gaming Corp.*, 504 F.3d 1356, 1360 (Fed. Cir. 2007) (quotations omitted).

Second, Masimo's construction improperly excludes components that the specification discloses could be part of the biosensor module. For example, the specification states that in some embodiments, the biosensor module may include components other than those that "sense physiological signals," such as "a chassis or plate." '783 patent, 28:9–12. *See Nobel Biocare Servs. AG v. Instradent USA, Inc*., 903 F.3d 1365, 1381 (Fed. Cir. 2018), as amended (Sept. 20, 2018) ("[T]here is a strong presumption against a claim construction that excludes a disclosed embodiment.") (quotations omitted).

Third, the specification explains that the biosensor module can "***detect and measure*** a physiological ***condition or property***"—not just ***sense*** physiological ***signals***. '783 patent, 28:17–24; *see also id.*, 8:32–36. Accordingly, it is improper to limit the biosensor module to the components that "sense physiological signals." *See Nobel Biocare*, 903 F.3d at 1381.

[19] Exemplary citations to the '783 patent also apply to the '491 and '483 patents because the '783, '491, and '483 patents share substantially the same specification.

Fourth, Masimo's construction contradicts the construction Masimo advanced in its IPR petition. There, Masimo argued that "a 'biosensor module' is a portion of the device that includes one or more sensors and optionally includes a cover." Apple Ex. 3 (IPR2023-00634, Paper 1), 14. Masimo's IPR construction contradicts its overly narrow construction in district court.

b) Masimo's Answering Position

Certain claims of the '783, '491, and '483 patents recite a "biosensor module." Neither "biosensor" nor "module" are common terms understandable by ordinary jurors. The specification explains that "biosensors" sense physiological signals. '783 patent at 8:26-29 ("In some aspects, the consumer product includes one or more biosensors. The biosensors may include optical and/or electronic biometric sensors that may be used to compute one or more health metrics."); '491 patent at 8:31-34 (same); '483 patent at 9:60-63 (same); *see* '783 patent at Abstract ("monitoring a user's physiological signals and providing health related information based on those signals"), 9:43-44; '491 patent at Abstract, 9:48; '483 patent at Abstract, 11:12. Therefore, Masimo proposed a simple construction: "one or more components that sense physiological signals."

Apple relies on disclosure that the biosensor module "***may*** include" components "configured to detect and measure a physiological condition or property." *Supra* at 51-52 (citing '783 patent at 28:17-24). Such optional components do not help the jury understand what a "biosensor module" is. A POSITA would understand that a biosensor senses a signal only. That signal is then processed to determine a condition or property. Masimo Ex. 15 ¶198.

Apple argues that Masimo's construction "limits the 'biosensor module' to ***only*** the components that 'sense physiological signals.'" *Supra* at 52. Apple's argument conflates claim construction with infringement, especially by focusing on the comprising language of the claim. The purpose of Masimo's construction was simply to explain to the jury what a "biosensor module" is, not to negate possible infringing components. Apple also argues that Masimo's IPR

construction that a biosensor "optionally includes a cover" contradicts its position here. *Id.* at 53. But that a module can include a cover does not define what a "biosensor module" is.

c) Apple's Reply Position

Masimo's opposition brief reveals two fundamental problems with Masimo's construction. ***First***, Masimo's construction improperly seeks to vitiate the term "module" from the "biosensor module." Throughout its brief, Masimo attempts to support its construction using intrinsic evidence describing a "biosensor." *See supra* at 53 (citing, *e.g.*, '783 patent, 8:26–29 ("The ***biosensors*** may include optical and/or electronic biometric sensors that may be used to compute one or more health metrics.")). But in doing so, Masimo improperly overlooks the intrinsic evidence showing that the biosensor ***module*** may include more than the biosensors. *See* '783 patent, 28:18–23 ("[T]he ***biosensor module*** [] may include one or more light sources, one or more photodetectors, and one or more electrodes or conductive elements that are configured to detect and measure a physiological condition or property of the user."); *id.*, 28:9–12 (may include "a chassis or plate."). Masimo's reliance on its expert's declaration is similarly unavailing because he too focuses on how a POSITA might have understood a "biosensor"—not a "biosensor module." *See supra* at 53; Masimo Ex. 15, ¶198.

Second, Masimo's construction is contradicted by its expert's testimony. In a portion of the declaration that Masimo fails to cite, Masimo's expert stated only that "a 'biosensor module' is a structure ***containing biosensors***." Masimo Ex. 15, ¶199. Thus, even Masimo's expert concedes that a "biosensor module" is ***not*** limited to the biosensors themselves. Indeed, in his IPR declaration, Masimo's expert testified that a "biosensor module" is simply "a ***portion of the device***

that includes one or more sensors and optionally includes a cover." Masimo Ex. 21, ¶53.[20]

d) Masimo's Sur-Reply Position

Apple does not dispute that the "biosensor module" has "one or more components that sense physiological signals." *Supra* at 54-55. Instead, Apple argues that Masimo's construction vitiates "module" because it includes only biosensors. *Id.* But sensors are the only required components of the module. Masimo's construction does ***not*** preclude the module from having other components. Thus, Masimo would not oppose construing the limitation to mean "a structure containing one or more components that sense physiological components."

5. "transparent" ('054 Patent, Claim 1; '491 Patent, Claims 3, 14; '483 Patent, Claims 1, 10, 12, 16, 20)[21]

a) Apple's Opening Position

Apple's Proposed Construction	Masimo's Proposed Construction
plain and ordinary meaning	able to transmit all light without diffusion

The term "transparent" is a basic, well-understood word that describes something through which light can pass. *See* Apple Ex. 4 (*McGraw-Hill Dictionary of Scientific and Technical Terms* (6th ed. 2003)) (defining "transparent" as "permitting passage of radiation or particles"). Accordingly, it should be given its plain and ordinary meaning. Consistent with that ordinary meaning, the specifications describe "transparent" broadly. *See, e.g.*, '054 patent, 13:24–26 ("The carrier may be transparent to all wavelengths of light or ***just some wavelengths (and even one wavelength) of light***."); '491 patent, 2:53–57 ("The biosensor module may also include an

[20] Masimo's argument about "conflat[ing] claim construction with infringement" is unclear. Apple's brief simply points out that the claims encompass the various embodiments of a "biosensor module" disclosed in the specification.

[21] Masimo also proposed construing the term "formed from a transparent [material/substrate]" as requiring the claimed material/substrate to be made "***entirely***" of a transparent material/substrate. C.A. 1378, D.I. 170-1 at 24. Accordingly, Apple briefed that term. *Infra* at 61. Masimo did not address that term in its answering brief. *See infra* at 61. The Court should therefore reject Masimo's previously proposed construction and adopt plain meaning.

optically transparent rear cover . . . operative to ***pass light emitted from the array of light sources*** into the user.").

Masimo's overly restrictive construction is wrong for two reasons. ***First***, "transparent" does not require transmission of "***all*** light." For example, the '054 specification explicitly states that "transparent" includes passage of "***just some*** wavelengths (and even ***one*** wavelength) of light." '054 patent, 13:24–26. Indeed, Masimo's IPR petition broadly construed a similar term—"defining an optically transparent window"—as "***allow[ing] passage of light*** to a relevant component through the cover." Apple Ex. 5 (IPR2023-00807 Paper 1), 10. ***Second***, "transparent" does not require transmission of "all light ***without diffusion***." That requirement finds no support in the specifications and contradicts Masimo's broad construction of a similar term in its IPRs. *See id*. Indeed, even air diffuses light, so Masimo's construction cannot be correct. *See* Apple Ex. 6 (*Space Observatories* (1970)), 20 ("[A]ir can also diffuse light . . . .").

b) <u>Masimo's Answering Position</u>

The '054, '491, and '483 patents recite "transparent" carrier members and covers. Though the jury may generally understand the term "transparent", these patents use "transparent" as a scientific term related to optical properties of materials and the plain and ordinary meaning as understood by a layperson may not be specific enough. Thus, "transparent" requires construction.

The '054, '491, and '483 patents use "transparent" numerous times but do not expressly or implicitly define the term. *See, e.g.,* '054 patent at 1:59, 5:59-63, 6:16, 7:38, 12:7, 12:12, 12:17, 14:5, 13:24-26, 13:37, 17:8, 18:32, 18:51, 34:17; '491 patent at 2:53-57, 3:21-31, 21:67-22:2, 22:14, 22:28, 40:48; '483 patent at 4:17-21, 4:49-62, 23:34-36, 23:48, 23:62, 42:30. The "transparent" cover is designed "to pass light emitted from the array of light sources into the user." '491 patent at 2:53-57; '483 patent at 4:17-21. But the '054 patent recognizes that "transparent" surfaces differ from "semi-transparent, translucent, or opaque" ones. '054 patent at 5:59-61.

"Transparent" is one of four scientific terms including "translucent," "semi-transparent," and "opaque" that are commonly used in the art to describe the ability of a surface to transmit light. Masimo Ex. 15 ¶203; Ex 22 ¶47. A POSITA would have understood the ordinary meanings of each of these terms and would have recognized that "transparent" is distinct from the others. A "transparent" surface transmits light ***without diffusion***. Masimo Ex. 23 (defining "transparent" to mean "capable of transmitting light with little absorption and no appreciable scattering or diffusion"). In contrast, a "translucent" or "semi-transparent" surface transmits light ***with diffusion***, and an "opaque" surface does ***not*** transmit light. Masimo Ex. 24; Masimo Ex 25; Masimo Ex. 26; Masimo Ex. 27. A POSITA would have understood that transmitting all light emitted by the biosensors through the cover into the user is critical to perform the biosensors' function. Masimo Ex. 15 ¶202; Masimo Ex. 22 ¶¶45-48.

Apple argues that "transparent" does not require transmission of ***all*** light because the '054 patent says its carrier "may be transparent to all wavelengths of light or just some." *Supra* at 55 (citing '054 patent at 13:24-26). This disclosure does not redefine "transparent." Instead, it explains two alternatives for the carrier, one designed to transmit all wavelengths of light (transparent) and another designed to transmit only some wavelengths (semi-transparent or translucent). In the context of the '054, '491, and '483 patents, a POSITA would have understood the "transparent" carrier must transmit all light "emitted from the array of light sources into the user" to allow the biosensors to perform their function. Masimo Ex. 15 ¶202; Masimo Ex. 22 ¶45-48; *see also* '491 patent at 2:53-57; '483 patent at 4:17-21.

Apple argues the specifications do not support the "without diffusion" language. *Supra* at 56. But Masimo's construction is the ordinary meaning of "transparent," not an express definition from the specification. Apple further argues that Masimo's IPR construction of "defining an

optically transparent window" does not include "without diffusion." *Id.* But the "without diffusion" language is not relevant to any argument in the IPRs. For example, Apple has not argued that the prior art lacks an optically transparent window because it diffuses light.

Apple argues that "without diffusion" cannot be correct because "even air diffuses light." *Id.* Apple provides no analysis or explanation. Moreover, Apple's claims do not concern air but solid material. Masimo's construction correctly distinguishes "transparent" materials from "translucent" ones based on whether they diffuse transmitted light. Masimo Ex. 15 ¶203; Masimo Ex. 22 ¶48.

c) Apple's Reply Position

Masimo begins by stating that the patents describe a "transparent" material as something that "is designed 'to pass light emitted from the array of light sources into the user.'" *Supra* at 56; *see also* Masimo Ex. 15, ¶202. But Masimo cites nothing in the patents that limits the claimed "transparent" cover/carrier to materials that pass "***all*** light ***without*** diffusion" as Masimo proposes. *See, e.g.*, '054 Patent, 12:6-9, 13:21-26; '491 Patent, 2:53-57, 21:67-22:2; '483 Patent, 23:34-36, 42:27-32. None of Masimo's arguments warrant deviation from the plain meaning.

Masimo first relies exclusively on extrinsic evidence to argue that "transparent" requires transmission of light "without diffusion." *Supra* at 57. That argument fails for four reasons. ***First***, that requirement is entirely absent from the patents. ***Second***, both of Masimo's experts regurgitate the brief nearly verbatim and, accordingly, deserve no weight. *Compare supra* at 56-58 *with* Masimo Ex. 15, ¶¶202-204 *and* Masimo Ex. 22, ¶¶46-48; *see Horizon Pharma, Inc. v. Dr. Reddy's Labs. Inc.*, 839 F. App'x 500, 503 (Fed. Cir. 2021). ***Third***, even Masimo's dictionary definition recognizes that a transparent material will exhibit at least some diffusion. Masimo Ex. 23 ("Capable of transmitting light with . . . no ***appreciable*** . . . diffusion."). ***Fourth***, the patents provide several examples of transparent materials—including sapphire—that exhibit diffusion.

See '054 patent, 7:67-8:1 ("[T]he cover 208 may be or include a crystal, such as a sapphire crystal."); Apple Ex. 46, ¶16.

Masimo next asserts that "transparent" requires transmission of "***all*** light" because, according to Masimo, the '054 patent's statement that the claimed "carrier may be transparent to all wavelengths of light or just some wavelengths (and even one wavelength) of light" (*see* '054 patent, 13:21-25) does not mean what it says. In particular, Masimo argues that the reference to a carrier that is "transparent to . . . some wavelengths" of light does not describe a transparent carrier, but rather a translucent one. *Supra* at 56-57.[22] But that is not what the patent says. The patent nowhere refers to transmission of "some wavelengths" of light as translucent. The patent calls that carrier transparent. *See* '054 Patent, 13:21-26; Apple Ex. 46, ¶13. Moreover, numerous materials that POSITAs consider transparent, such as "ITO" and "ZnO" transmit some—but not all—light. Apple Ex. 46, ¶15. Thus, Masimo's hyper-narrow requirement that a transparent material must transmit "***all*** light" cannot be correct.

Masimo then tries to reconcile its district court construction with the inconsistent position it took in the IPR by arguing that the reason it did not limit "transparent" to require transmission of "all light without diffusion" was because it was not relevant to any dispute. *Supra* at 57-58. But Masimo is purportedly advancing "the ordinary meaning of 'transparent,' not an express definition from the specification." *Id*. If that's truly what Masimo is trying to do, then its IPR construction should have been consistent with the purported plain meaning it advances in district court. That glaring inconsistency shows that Masimo is trying to manufacture noninfringement positions rather than searching for the plain meaning.

[22] Masimo equates "translucent" with "semi-transparent." *See, e.g.*, Masimo Ex. 22, ¶ 47 (arguing that "semi-transparent" is a synonym of "translucent").

Finally, Masimo feigns confusion to avoid grappling with the fact that under its construction, even air—which indisputably diffuses light (*supra* at 56)—would not be considered "transparent." *See supra* at 58.

d) Masimo's Sur-Reply Position

Apple refuses to offer any plain and ordinary meaning of "transparent." Apple would improperly have the jury construe the term, with the task of evaluating the import of the specification distinguishing "transparent, semi-transparent, translucent, or opaque." *Supra* at 56-60. Instead, the Court should resolve this issue before any trial.

Masimo's construction is predicated on the specification's distinguishing of "transparent, semi-transparent, translucent, or opaque." None of Apple's arguments reconcile the different meanings of these words. Indeed, Apple's expert offers a definition that would encompass any translucent material, such as frosted glass. Apple Ex. 46 ¶13 ("something through which light can pass"); Masimo Ex. 25. Her definition would even include a finger, through which light passes in pulse oximetry. Fingers are obviously not transparent.

Apple points out that no material actually allows passage of ***all*** light without ***any*** diffusion. Putting aside the hyper-technical nature of that argument, Masimo would be willing to adopt the qualifier advocated by Apple and its expert, namely, that no ***appreciable*** diffusion occurs when light passes through a transparent material. And to account for the specification referring to the passage of "some" wavelengths, Masimo would eliminate the "all" requirement. Thus, "transparent" would mean "able to transmit light without ***appreciable*** diffusion."

Apple distorts the IPR. Masimo never construed the word "transparent" in the IPR as Apple represents. *Compare supra* at 59 *with* Apple Ex. 5. Masimo explained how the "cover" defines openings to accommodate the transparent window. Apple Ex. 5. The window transparency was not at issue in the IPR. *Id.* Thus, Apple fabricates the "glaring inconsistency"

it alleges. *Supra* at 59.

6. "formed from a transparent [material/substrate]" ('054 Patent, Claim 1; '491 Patent, Claim 3)

a) Apple's Opening Position

Apple's Proposed Construction	Masimo's Proposed Construction
plain and ordinary meaning	made entirely of a transparent [material/substrate]

As explained in Section II.C.5, a "transparent" material is readily understood by POSITAs. Thus, forming something from a transparent material is similarly understood. The specifications use the phrasing consistent with its plain meaning. '054 patent, 27:51–53 ("The crown 210 may be ***formed from*** multiple elements attached together . . . ."); '491 patent, 10:34–39 ("[H]ousing may be ***formed from*** a variety of materials . . . ."). Masimo's construction is wrong for two reasons. ***First***, Masimo's construction arbitrarily replaces "formed from" with "made . . . of." That unnecessary rewording injects ambiguity into an otherwise straightforward claim term. ***Second***, Masimo asserts that "formed from a transparent [material/substrate]" means made "***entirely***" from a transparent material or substrate. But where a claim term does not use the word "entirely" to refer to the composition of a structure, it is improper to import that limitation. *See, e.g.*, *Forest Lab'ys, LLC v. Accord Healthcare Inc.*, 2016 WL 6892094, at *1 n.6 (D. Del. Nov. 21, 2016) (declining to import "entirely" into construction because claims did not support that narrowing construction); *Simpson Strong-Tie Co., Inc. v. Oz-Post Int'l, LLC*, 2020 WL 3187950, at *5 (N.D. Cal. June 15, 2020) (same).

7. "configured to maintain alignment" ('491 Patent, Claims 4, 12)

a) Apple's Opening Position

Apple's Proposed Construction	Masimo's Proposed Construction
plain and ordinary meaning	having all structure necessary to keep in an existing state of alignment

Claims 4 and 12 generally recite a watch that can be magnetically aligned with a charging dock/coil. '491 patent, claims 4, 12. The phrase "configured to maintain alignment" is easily understood and requires no further construction. *See, e.g.*, Apple Ex. 7 (*McGraw-Hill Dictionary of Computing and Communications* (6th ed. 2003)) (defining "alignment" as "the process of adjusting components of a system for proper interrelationship"). Consistent with this plain meaning, the specification uses the term broadly, providing numerous example configurations for maintaining alignment, such as with "alignment magnets" ('491 patent, 5:41–44), "protrusions and corresponding indentations in the housings of the transmitter and receiver devices" (*id.*, 43:26–30), "magnetic field sources" (*id.*, 43:34–41), "ferromagnetic material" (*id.*, 45:26–41), "complementary geometries" between the watch and dock (*id.*, 45:15–25), and any combinations of those features (*id.*, 42:67-43:3 ("[I]n many examples, the wireless power transfer system may include ***one or more alignment assistance features***")). *See also id.*, 43:39–41 ("[M]ultiple alignment assistance features may cooperate to effect alignment . . . ."); 43:32–33 ("[O]ne or more alignment features can be used individually or in various combinations thereof.").

Masimo's construction should be rejected for two reasons. ***First***, Masimo arbitrarily replaces "configured to" with "having all structure necessary to." But the specification does not require any particular structure that is "necessary" for alignment. Indeed, some of the claims that ***Masimo*** asserts in this case use the phrase "configured to," yet Masimo does not construe them as "having all structure necessary to." *See, e.g.*, Masimo '743 patent, claims 1, 14. ***Second***, Masimo's arbitrary substitution of "maintain" with "keep in an existing state" introduces unnecessary ambiguity about, for example, the meaning of "existing state."

b) Masimo's Answering Position

Masimo no longer sees any reason to construe "configured to," but submits the Court should construe "maintain alignment." Claims 4 and 12 of the '491 patent recite magnets

"configured to ***maintain*** alignment of the electronic watch with respect to the charging dock." By contrast, claims 6, 10, and 19 recite merely "configured to ***facilitate*** alignment." Those limitations are broader than the "configured to ***maintain***" limitations. *Tandon Corp. v. ITC*, 831 F.2d 1017, 1023 (Fed. Cir. 1987) ("There is presumed to be a difference in meaning and scope when different words or phrases are used in separate claims."). In its Infringement Contentions, Apple suggests that merely facilitating alignment is enough to "maintain alignment." Masimo disagrees. Thus, construction is needed to resolve this dispute.

The specification's sole use of "configured to maintain" is in the context of a watch strap with a locking mechanism. '491 patent at 55:3-5. The specification does not use the term "maintain" in the context of a charging dock. Rather, the specification consistently refers to facilitating or assisting in alignment. *See, e.g.,* '491 patent at 43:1-46, 45:23-25, 45:26-41, 45:45-48 ("[T]he complementary geometries of the device 100 and the dock 1802 may further facilitate alignment when the alignment magnets 1838, 1840 are drawn together.").

The definition of "maintain"—"to keep in an existing state"—also supports Masimo's construction. Masimo Ex. 28. This definition is consistent with how the '491 patent uses "maintain."

Apple does not address what "maintain" means. *Supra* at 62. Instead, Apple defines "alignment," whose meaning is not disputed. *Id.* And Apple merely mentions the specification cites above relating to facilitating or assisting alignment as applying to maintaining. *Id.* (citing, *e.g.,* '491 patent at 42:67-43:3). Those cites provide no insight into the meaning of "configured to ***maintain*** alignment." Finally, Apple argues without support that the phrase "existing state" is ambiguous. *Id.* at 63. "Existing state" is an easily understandable term.

c) Apple's Reply Position

Masimo now concedes that "configured to" requires no construction (*supra* at 62) and that the meaning of "alignment" "is not disputed" (*supra* at 63). Masimo only appears to define "maintain" as "keep in an existing state." *Supra* at 63. None of Masimo's arguments warrant deviating from the plain meaning of "maintain." ***First***, Masimo argues that construction of this term is necessary because Apple's infringement theory conflates "facilitating alignment" with "maintaining alignment." *Id.* That is incorrect. The claims require different structures that "facilitate[] alignment" and that "maintain alignment." *Compare* '491 patent, Claim 4 ("[T]he first and second magnets are configured to maintain alignment of the electronic watch with respect to the charging dock.") *with* '491 patent, Claim 6 ("[T]he convex exterior profile facilitates alignment between the cover and a mating surface of an external wireless charging device."). Accordingly, Apple accuses different elements in the Accused Products for those two claim terms. ***Second***, Masimo contends that Apple's intrinsic evidence provides "no insight into the meaning of 'configured to maintain alignment.'" *Supra* at 63. That is plainly incorrect. As discussed in Apple's opening brief, the specification provides numerous examples of configurations that can maintain alignment between the watch and charging dock/coil. *Supra* at 62. ***Third***, as a last resort, Masimo relies on a dictionary to support its definition of "maintain" as "keep in an existing state." *Supra* at 63. "Existing state" is an arbitrary addition that is not supported by the claims or the specification.

d) Masimo's Sur-Reply Position

Apple's first argument misses the point. *Supra* at 64. Apple's infringement contentions on "maintain alignment" identify structures that merely facilitate alignment. Thus, a construction distinguishing "maintain alignment" from "facilitating alignment" is needed. Masimo previously addressed Apple's second and third arguments. *Id.* at 62-63.

8. "near-field communication system" ('491 Patent, Claim 5)

a) Apple's Opening Position

Apple's Proposed Construction	Masimo's Proposed Construction
system that permits communication wirelessly over close distances	a contactless communication technology operating over a radio using a base frequency of 13.56 MHz with a typical range of up to 2cm and a data rate of 424 Kbit/s

Apple's construction accurately captures what the claimed near-field communication system is: a system that permits communications wirelessly over close distances. Claim 5 is directed to an "electronic watch." '491 Patent, claim 5. That watch can communicate through its housing and/or cover with another device, such as a phone, indicating that the transmission occurs wirelessly. *Id.*; *see also id.*, 17:60-66 ("[T]he wearable electronic device 100 may communicate wirelessly with any number of other devices," including a "mobile phone"). The specification further explains that the communications occur over close distances. *See id.*, 41:34-36, 48-50 (describing "example" where the "wearable electronic device" communicates with a "proximate" station "by placing the device 100 ***near*** an active region on the station"); *id.*, 41:25-65. Apple's construction captures those features of the "near-field communication system."

In contrast, Masimo improperly limits the term to a particular implementation of a particular technology mentioned as one example in the specification, thereby committing a cardinal sin of claim construction. *See Scimed Life Sys., Inc. v. Adv. Cardiovascular*, 242 F.3d 1337, 1340 (Fed. Cir. 2001) ("reading a limitation from the written description into the claims" is "one of the cardinal sins of patent law"). Specifically, Masimo limits the term to a particular implementation of the Near Field Communication ("NFC") protocol published by the International Standards Organization ("ISO"), which varyingly describes transmission parameters having a 13.56 MHz frequency, a distance of up to 10 cm, and data rates ranging from 106 to 424 kbit/s. Apple Ex. 8 (International Standard ISO/IEC 18092), v, 1; Apple Ex. 9, 1.

Masimo's hyper-narrow construction—limiting the claim to a specific subset of the NFC protocol's parameters—should be rejected for three reasons. ***First***, although the claim term uses words that are included in the name of the ISO protocol, where a claim term is lowercase, that term should not be limited to a particular protocol. *AIP Acquisition LLC v. Cisco Systems, Inc.*, 714 F. App'x 1010, 1014 (Fed. Cir. 2017) ("The patent applicant could have claimed a specific protocol, such as the IP of TCP/IP, perhaps by capitalizing the 'I' in 'internet' and the 'p' in 'protocol' in both claims or more definitively by reciting the 'Internet Protocol of TCP/IP.' It did not, however, and the use of lowercase letters suggests that 'I/internet protocol' is not confined to any particular protocol.").

Second, the specification makes clear that the NFC protocol is just one non-limiting example of the types of near-field communication technologies encompassed by the invention: "In ***some*** implementations, the wireless communication ***may*** include a Near Field Communication (NFC) interface." '491 patent, 8:45–47; *see also id.*, 13:5–6, 41:19–21. Indeed, the specification describes multiple technologies—including "Bluetooth interfaces," "infrared interfaces," and "Wi-Fi interfaces"—that permit wireless communications between nearby devices. '491 patent, 17:31–40; *id.,* 43:52–60.

Third, Masimo applied a much broader interpretation in its IPR petition concerning the '491 patent. During prosecution, the Examiner "interpreted 'near-field communication' broadly" to include "a near-field communication system (***I.e. Bluetooth***)." Apple Ex. 10 (IPR2023-00734, Paper 1), 58. Masimo asked the PTAB to apply that construction in the IPR proceeding, which uses the same *Phillips* standard for claim construction as district courts. *Id.* ("Thus, under the Examiner's construction . . . Bluetooth satisfies the near-field communication limitation.").

b) Masimo's Answering Position

Claim 5 of the '491 patent recites a "near-field communication system." The specification does not use the term "near-field communications system." One sentence says a product may include "near-field communications." '491 patent at 7:13. Every other reference is to "Near Field Communication" (or "NFC"), which the specification distinguishes from Bluetooth, Wi-Fi, and other communication interfaces. *Id.* at 8:45-47, 13:4-10, 17:31-40, 41:19-24, 43:52-60. Apple mischaracterizes these cites as supporting construing near-field communication as a general category that includes NFC, Bluetooth, and Wi-Fi. *Supra* at 65.

Thus, "near-field communication system," properly interpreted in view of the specification, refers to the NFC protocol. *See SciMed Life Sys., Inc. v. Adv. Cardiovascular*, 242 F.3d 1337, 1340 (Fed. Cir. 2001) (emphasizing claims must be read in view of specification; summarizing cases). Masimo does not read a limitation from the specification into the claims as Apple contends. *Supra* at 65. Masimo properly uses the specification as a guide to understanding "near-field communication system." *See SciMed*, 242 F.3d at 1344 (specification can provide guidance without an express definition). Moreover, a POSITA would understand that this limitation refers to the NFC protocol whether it is capitalized or not. Masimo Ex. 15 ¶210. Indeed, Apple has used lowercase "near-field communication ('NFC') capability" in referring to NFC standards. *See, e.g.*, Masimo Ex. 43 at 9:66-10:2. Thus, Masimo's construction correctly construes "near-field communication system" to be a communication system implementing the NFC standard. *See* Masimo Ex. 29; Masimo Ex. 30.

Apple relies on the non-precedential case *AIP Acquisition LLC v. Cisco Sys., Inc.*, 714 F. App'x 1010, 1014-15 (Fed. Cir. 2017), to argue that the claim's use of lowercase letters in "near-field communication system" means the phrase is generic. *Supra* at 66. *AIP* does not stand for the broad proposition that use of lowercase terms avoids the proper noun associated with the

uppercase terms. Instead, *AIP* reviewed all of the intrinsic evidence to construe the term.

Apple argues that "near-field communication system" refers generically to any "system that permits communication wirelessly over close distances." *Supra* at 65 (citing '491 patent at 17:60-66, 41:25-65). But those citations mention wireless communication generically and say nothing about the meaning of a near-field communication system.

Finally, Masimo did not propose an inconsistent construction in the IPR. *Supra* at 66. Instead, Masimo acknowledged that the Examiner found that Bluetooth is a near-field communication system. Masimo Ex. 31 at 58. But that finding was erroneous. Masimo argued that a prior art teaching of using Bluetooth would lead a POSITA to consider "***other*** common wireless protocols such as" NFC. *Id.* Thus, Masimo argued the NFC limitation would have been ***obvious*** in view of the Bluetooth reference. *Id.* at 58-59. Indeed, Bluetooth and Wi-Fi are not understood to be "near-field" communications. Masimo Ex. 15 ¶¶210-211; Masimo Ex. 32 (summarizing differences between Bluetooth, Wi-Fi, and NFC).

c) Apple's Reply Position

Masimo confirms that its construction improperly limits this term to the ISO NFC protocol. *Supra* at 67-68. Masimo's arguments in support of that hyper-narrow construction fail for four reasons. ***First***, Masimo concedes that the claim uses lower-case letters, whereas the specification's references to the ISO protocol use capital letters. *Supra* at 67 (citing instances where specification uses capital letters to refer to the NFC protocol). That demonstrates that if Apple had wanted to claim only the ISO protocol, it could have used capital letters to indicate that in the claims.[23] *See, e.g.*, *TQ Delta, LLC v. Comcast Cable Commcn's, LLC*, 2016 WL 7013481, at *13 (D. Del. Nov.

[23] Masimo's cite to Masimo Ex. 43 is inapposite because Masimo Ex. 43 is an unrelated patent and expressly describes "near-field communication" as including ISO standards. *Supra* at 67; Masimo Ex. 43, 9:66-10:4.

30, 2016). Notably, Masimo cites cases only for the general proposition that claims are read in view of the specification, but nowhere does Masimo cite a case that limits a lower-case claim term to a particular industry protocol. *See supra* at 67-68.

Second, Masimo fails to distinguish *AIP*. In *AIP*, the court affirmed the Board's conclusion that the presence or absence of a capital letter "i" had significance in the claim language. *See* 714 F. App'x 1010, 1014-15 (Fed. Cir. 2017). Likewise, the capitalization of "Near-Field Communication" in the specification when referring to the NFC protocol, coupled with the lower-case letters in the claim, indicates a difference between the NFC protocol and the claimed near-field communication system.

Third, Masimo distorts the inconsistent argument it advanced in the IPR. In particular, Masimo argues that the Examiner's finding that "Bluetooth is a near-field communication system . . . was erroneous" and that in the IPR Masimo argued only that Bluetooth would render the claimed near-field communication system obvious. *Supra* at 68. That is demonstrably untrue. Masimo recognized that the "Examiner interpreted 'near-field communication' broadly" to include "Bluetooth . . . ." Masimo Ex. 31 at 58. Masimo never then expressed its apparent newfound belief that the Examiner's interpretation was erroneous. *See id.* at 58-59. Rather, Masimo unequivocally argued that "under the Examiner's construction, Kotanagi's ***Bluetooth satisfies the near-field communication limitation***." *Id.* at 58. Masimo cannot argue that "Bluetooth satisfies the near-field communication limitation" in the IPR (*id.*), yet at the same time seek to exclude it in district court.

Finally, Masimo ignores that even the ISO NFC protocol is ***broader*** than Masimo's proposed construction. Masimo seeks to limit this term to a technology "with a typical range of up to ***2cm***" and "a data rate of ***424 Kbit/s***." Masimo Ex. 15, ¶211. But the ISO NFC protocol lists

distances of up to ***10 cm*** and data rates ranging from ***106 to 424 kbit/s***. Apple Ex. 8 at vi; Apple Ex. 9 at 1. Thus, Masimo's construction cannot be correct.

d) Masimo's Sur-Reply Position

Contrary to Apple's argument, case law has limited a lowercase claim term to a particular industry protocol. *Supra* at 68-69. In *E2E Processing, Inc. v. Cabela's Inc.*, 2015 WL 4051423, at *12-*15 (E.D. Tex. July 2, 2015), the lowercase claim term "internet server application program interface component" was construed to mean "ISAPI component, which is a dynamic link library (DLL) used by Microsoft Internet Information Server (IIS) to handle requests." *Id.* The court rejected the argument that a lowercase term "does not refer to a particular API provider." *Id.* Apple's case, *AIP*, is different because the lowercase "internet protocol" term was known to be generic. *See supra* at 67-68. Here, "near-field communication system" is not generic. Masimo Ex. 15 ¶210.

Masimo did not take an inconsistent position in the IPR. *Supra* at 69. Masimo already explained that it acknowledged, but did not adopt, the Examiner's erroneous claim construction in the IPR. *Supra* at 68. Finally, Apple cites different portions of the NFC standard with broader ranges than in Masimo's construction. *Supra* at 69-70 (distances up to 10 cm and data rates from 106 to 424 kbit/s). Masimo's ranges are supported by the NFC standard. *Supra* at 67-68; Masimo Exs. 29-30.

9. "carrier member" ('054 Patent, Claims 1, 3, 4, 6, 8-10, 12, 15-17, 19)

a) Apple's Opening Position

Apple's Proposed Construction	Masimo's Proposed Construction
structure that can support the electrodes, or on which the electrodes can be formed or attached	structure on which electrodes are positioned

A "carrier member" describes a structure that can carry something else. *See, e.g.*, '054 patent, 6:11–15. Masimo's construction is a back-door attempt to improperly limit the claims to a

particular embodiment where the electrodes are "positioned" directly "on" the structure. But the claims are broader and include "any appropriate structure that [1] ***supports*** the electrodes, [2] on which the electrodes are ***formed***, ***or*** [3] to which the electrodes are ***attached***." *Id*. Only Apple's proposed construction encompasses all three of those embodiments. In contrast, Masimo's construction improperly reads out embodiments where an electrode is supported by the carrier member but is not itself positioned "on" the carrier member. For example, Masimo's construction reads out Figure 8, where elements of the electrodes are stacked upon each other and are supported by—but not positioned "on"—the carrier structure. *See id.*, Fig. 8, 18:36–52. As another example, Masimo's construction reads out embodiments where electrodes are positioned "around"—but not "on"—the carrier structure. *See id.*, 23:47–57.

b) Masimo's Answering Position

Apple appears to agree "carrier member" is not a commonly used term that the jury would understand and offers its own construction. A "carrier member" is a structure. The surrounding claim language explains electrodes are "positioned on" that structure. '054 patent at claims 1, 9, 15. The specification confirms the same. *See, e.g.,* '054 patent at 7:1-4, 13:27-30, 14:8-12.

Apple does not dispute that the "carrier member" is structure. Apple objects to the "positioned on" language because the specification describes that the carrier ***may*** support electrodes or the electrodes are formed on or attached to the carrier. *Supra* at 70 (citing '054 patent at 6:11-15). But the claims do not recite those features. Apple next argues that Masimo's construction "reads out embodiments" (1) "where an electrode is supported by the carrier member but is not itself positioned 'on' the carrier member" and (2) "where electrodes are positioned 'around'—but not 'on'—the carrier structure." *Supra* at 71. But those "embodiments" are ***not*** in the specification and are mere hypotheticals. Moreover, the claims expressly recite one or more electrodes "positioned on the carrier member." Thus, the plain language of the claims controls,

regardless of whether they might cover hypotheticals.

c) Apple's Reply Position

The specification explains—and ***Masimo's*** expert confirms—that a carrier "may be ***any*** appropriate structure that [1] supports the electrodes, [2] on which the electrodes are formed, ***or*** [3] to which the electrodes are attached." '054 Patent, 6:11-15; Masimo Ex. 22, ¶31; *see also id.* ¶30 ("[T]he '054 patent describes a 'carrier' that is a 'structure that ***supports*** the electrodes."). Apple's construction tracks that language and encompasses each of those embodiments. In contrast, Masimo's construction excludes embodiments, and is not supported by the portions of the specification it cites. For example, although an electrode "***may*** be positioned at the periphery of the carrier," it may also be "***otherwise positioned*** to enable an optical sensor subsystem to emit and receive light through the carrier." '054 Patent, 7:1–4. In other words, an electrode need not be positioned ***directly on*** the carrier—rather, it could also be positioned elsewhere and attached to or supported by the carrier in another manner that enables the optical sensor subsystem to emit and receive light. *See also, e.g.*, *id.*, Fig. 8 (showing a stacked electrode embodiment). Masimo's construction excludes those embodiments and should be rejected. *See Nobel Biocare Servs. AG v. Instradent USA, Inc.*, 903 F.3d 1365, 1381 (Fed. Cir. 2018) ("[T]here is a strong presumption against a claim construction that excludes a disclosed embodiment." (quotations omitted)). Masimo's other citations ('054 Patent, 13:27–30, 14:8–12) do not even use the word "positioned" and certainly do not support Masimo's apparent contention that the electrodes must be positioned directly on the carrier. Finally, Masimo's construction improperly renders the limitation "positioned on the carrier member" superfluous by reading that limitation into carrier member itself. *See id.*, Claims 1, 9, 15; *Akzo Nobel Coatings, Inc. v. Dow Chem. Co.*, 811 F.3d 1334, 1340 (Fed. Cir. 2016).

d) Masimo's Sur-Reply Position

Apple incorrectly argues its construction tracks the specification. *Supra* at 72. The specification never says the carrier member merely "***can*** support" electrodes. '054 patent at 6:11-15. Apple also incorrectly argues Masimo's construction would render the "positioned on the carrier member" limitations superfluous. *Id*. The "positioned on the carrier member" limitations provide additional detail not in Masimo's construction, such as ***which*** or ***how many*** electrodes are positioned on the carrier member. Masimo previously addressed Apple's argument that Masimo's construction excludes embodiments. *Supra* at 71-72.

10. "deposited on" ('054 Patent, Claims 4, 17)

a) Apple's Opening Position

Apple's Proposed Construction	Masimo's Proposed Construction
plain and ordinary meaning	applied directly to

Construction of "deposited on" is unnecessary because the '054 patent uses that term according to its well-understood meaning. *See, e.g.*, '054 patent, 29:30–33 ("Any or all of the coatings described herein may be ***deposited*** in a number of ways, including electrophoretic deposition or other manners that are suitable and known in the art."). In addition to being unnecessary, Masimo's construction also commits a "cardinal sin" of claim construction by reading the limitation "applied ***directly***" from the written description into the claims. *See Scimed Life Sys.*, 242 F.3d at 1340. In describing how the rear-facing electrode "may be formed (*e.g.*, printed, plated, or otherwise ***deposited***) ***on*** the back side housing member," the specification explains that it "may be formed ***directly*** on the back side housing member," but that it could also be "***separated from*** the back side housing member by an insulator or insulating layer." '054 patent, 9:66–10:12. Masimo's construction would improperly read out any indirect application of a conductive coating to the carrier member, such as when the coating is separated by an insulator or

insulating layer. Additionally, the specification contemplates both direct and indirect coupling of various components to the carrier member, further confirming that Masimo's construction improperly reads out disclosed embodiments. *See, e.g.*, *id.*, 16:32–34 ("Direct ***or indirect*** connection of the components shown in FIG. 4C to the interior surface of the carrier can reduce the height of the components when stacked."); 19:46–48 ("In these embodiments, one or more of the conductive materials to form the electrode and electrical contact may be applied ***over the mask(s)***").

b) Masimo's Answering Position

Claims 4 and 17 of the '054 patent require certain electrodes to include or be defined by "a conductive coating deposited on … the carrier member." The '054 patent explains that such electrodes are formed on the carrier member by ***depositing*** thin films in a coating process such as physical vapor deposition ("PVD"). *See* '054 patent at FIGS. 5A-5E, 9A, 9B, 13:30-32, 16:53-55, 17:26-28, 19:1-18, 20:8-39. PVD is a well-understood process that involves vaporizing raw material and depositing the vaporized content directly onto a substrate. Masimo Ex. 33 at 7.

Apple does not dispute that "deposited on" requires the electrodes to be formed from a ***coating*** applied to the carrier member rather than formed as separate components and then attached. *Supra* at 73-74 (citing specification). Apple argues that the coating need not be applied ***directly*** to the carrier member. *Id.* However, Apple's specification cites do not support the argument and ignore the phrase "deposited ***on***." Apple relies on an unclaimed embodiment in which the "rear-facing electrode" is separated by from "back side housing member" by an insulator. *Supra* at 73 (citing '054 patent at 9:66-10:12). This disclosure does not change the meaning of deposited on because it distinguishes "formed on" with "separated by."

Apple's discussion of a "[d]irect or indirect connection" of the stack of "components shown in FIG. 4C" fares no better because that disclosure does not address deposited on. *Supra* at 74

(citing '054 patent at 16:32-34). Finally, Apple relies on an embodiment in which masks are "applied to the interior surface of the carrier" and the "conductive materials used to form the electrode" are "applied over the mask(s)." *Id.* (citing '054 patent at 19:46-48). But in embodiments with masks, the mask is part of the carrier member. *See, e.g.,* '054 patent at 15:2 ("When the carrier 404 includes the mask 422 …"), claim 8 ("the carrier member includes an opaque ink mask"). Thus, a POSITA would understand that conductive materials "applied over the mask(s)" are applied directly to the carrier member, contrary to Apple's argument. *Supra* at 73-74.

c) Apple's Reply Position

Masimo's arguments for construing "deposited on" as "applied ***directly*** to" should be rejected. ***First***, Masimo argues that the patent's references to physical vapor deposition ("PVD") as one means to deposit a coating on a carrier justify its construction. *Supra* at 74. But PVD is only one example of how coatings may be deposited on a carrier. '054 patent, 11:57-59 ("In ***some*** cases, each of the electrodes . . . ***may*** be PVD deposited . . . ."), 13:30-32. Other embodiments do not require PVD deposition. *Id.*, 29:30-33 ("***Any or all of the coatings described herein may be deposited in a number of ways***, including electrophoretic deposition or ***other manners that are suitable and known in the art***."), 9:66-10:1 ("The rear-facing electrode 216 may be formed (e.g., printed, plated, ***or otherwise deposited***) on the back side housing member . . . .").

Second, Masimo concedes that its construction excludes preferred embodiments. *Supra* at 74. In particular, Apple demonstrated that the patent discloses an embodiment where an electrode is "formed (e.g., printed, plated, or otherwise ***deposited***) ***on*** the back side housing member . . . ." '054 patent, 9:66-10:1. That deposited electrode "***may*** be formed ***directly*** on the back side housing member" but may also "be ***separated*** from the back side housing member . . . by an insulator or insulating layer . . . ." '054 patent, 10:1-12. Without support, Masimo argues that this embodiment

is "unclaimed." *Supra* at 74. But a construction "that excludes a preferred embodiment from the scope of the claim is ***rarely, if ever, correct***." *MBO Labs.*, 474 F.3d at 1333.

d) Masimo's Sur-Reply Position

That the specification discusses multiple coating deposition processes does not undermine Masimo's construction. *See supra* at 75. Apple never explains how these processes affect claim construction. *Id.* Masimo previously addressed Apple's argument that Masimo's construction excludes an embodiment. *See id.* at 74-75.

11. "application" ('352 Patent, Claims 1, 9, 17)

a) Apple's Opening Position

Apple's Proposed Construction	Masimo's Proposed Construction
plain and ordinary meaning	a program that, in response to user commands, performs a task beyond: (a) device control, (b) device status indication, or (c) another task related to the internal function of the device itself

The term "application" is a word that is commonly used by POSITAs and lay persons alike. Nothing in the claims or specification warrants deviation from the plain and ordinary meaning. The specification provides numerous examples, including contact, telephone, e-mail, calendar, and word processing applications in Figure 3, and clock, weather, and settings applications in Figure 4A, among many others. '352 patent, 17:33–61; 21:12–14; 30:24–67.

Masimo's construction is essentially a negative construction that seeks to define an application by what Masimo contends is not an application. Specifically, Masimo seeks to exclude programs that do not perform tasks beyond "device control," "device status indication," or some other unspecified "task related to the internal function of the device itself." Masimo's construction should be rejected for two reasons. ***First***, far from providing clarity, Masimo's vague construction just invites disputes regarding what is "a task beyond" "device control" or "device status

indication" or—particularly problematic—what Masimo's construction refers to as some other unspecified "task related to the internal function of the device itself."

Second, none of Masimo's vaguely defined exclusions is supported by the claims or specification. Indeed, Masimo's construction improperly reads out "applications" explicitly disclosed in the specification. For example, the specification provides an example of "a ***settings application*** or module, which ***provides access to settings for device*** 100." '352 patent, 30:65–67. That explicitly disclosed settings ***application***—which does nothing other than provide device control[24]—would not be an "application" under Masimo's overly narrow construction. Other prominent examples include applications that provide status indications, such as "the number of missed calls or voicemail messages" and "the number of unread emails." *Id.*, 30:36–42. Accordingly, Masimo's vague negative construction should be rejected. *See Kamstrup A/S v. Axioma Metering UAB*, 43 F.4th 1374, 1383 (Fed. Cir. 2022) (rejecting proposed construction because it "reads in a negative limitation that is at odds with the claim language" and specification).

b) Masimo's Answering Position

Every example in the specification of an application falls within Masimo's construction: "a program that, in response to user commands, performs a task beyond: (a) device control, (b) device status indication, or (c) another task related to the internal function of the device itself." The applications of Figures 1A and 3—including "Contacts," "Telephone," Video Conference," "E-mail Client," "Instant Messaging," "Word Processing," and "Spreadsheet"—are programs that, in response to user commands, perform tasks beyond device control and device status indication, and that are unrelated to the internal function of the device. '352 patent at FIGS. 1A, 3, 7:36-47.

[24] The "settings" application allows the user to "adjust one or more of the set of intensity thresholds (e.g., by adjusting individual intensity thresholds and/or by adjusting a plurality of intensity thresholds at once with a ***system-level click*** 'intensity' parameter)." '352 patent, 33:15–20.

The specification distinguishes those "applications" from (1) "indicators" (*e.g.,* "Signal strength indicator(s) for wireless communication(s), such as cellular and Wi-Fi signals," "a Bluetooth indicator," and "a Battery status indicator") and (2) "device controls." '352 patent at 30:24-67 (listing "indicators" separately from "applications"), 80:19-22 ("device controls . . . for controlling one or more device functions of the device"). And claim 7 expressly recites that the "control panel" that includes "controls" for "device functions" is "different from . . . the widget screen" that includes "user interface objects corresponding to different applications."

Dictionary definitions of "application" also support Masimo's construction. Several technical-dictionary definitions show it was well understood that an "application" is a program that performs tasks based on user commands but is different from system software related to controlling the computer itself. *See, e.g.,* Masimo Exs. 34-38. A POSITA would have understood that, in a mobile device as disclosed in the '352 patent, system software includes device control, device status indication, and other tasks related to the internal function of the device itself. Masimo Ex. 40 ¶34. Thus, the accepted meaning of "application" supports Masimo's construction.

Apple argues that Masimo's construction is an improper "negative construction." *Supra* at 76. But the construction affirmatively includes the user tasks (such as phone or email functions) ordinarily understood to be "applications" while correctly excluding operating system software for controlling the computer (such as device controls and device status indicators). *See, e.g,* Masimo Ex. 35. Apple relies on *Kamstrup A/S v. Axioma Metering UAB*, 43 F.4th 1374, 1383 (Fed. Cir. 2022), as rejecting a negative limitation. *Supra* at 76-77. But in *Kamstrup*, the Federal Circuit rejected a construction that was inconsistent with the claim language and specification. Here, both the claim language and specification support Masimo's construction.

Apple also argues that Masimo's construction is vague and "invites disputes" about what

tasks are "beyond: (a) device control, (b) device status indication, or (c) another task related to the internal function of the device itself." *Supra* at 76-77. But Masimo's construction clarifies the term "application" to avoid disputes that would be inevitable under Apple's proposal to ***not*** construe the term. The types of software included in and excluded from the "application" category would likely be very confusing to the jury if it is provided no guidance as Apple suggests. The phrases Masimo proposes—"device control," "device status indication," and "task related to the internal function of the device itself"—use common words for the jury to understand and apply.

Apple also criticizes Masimo's construction based on the specification's disclosure of optional indicators on the icons for the phone and email applications. *Supra* at 77. The specification explains that the phone icon "optionally includes an indicator 414 of the number of missed calls or voicemail messages and the email icon "optionally includes an indicator 410 of the number of unread e-mails." '352 patent at 30:37-42. But the phone and email applications fall within Masimo's construction because they process phone calls and email messages. Nothing about Masimo's construction would exclude those applications merely because their icons may include indicators.

Apple also argues that, because a lay person might commonly use the word "application," it needs no construction. *Supra* at 76. And while Apple does not identify an ordinary meaning of "application," it seeks to cover settings such as turning on or off vibrate mode or Bluetooth. *See, e.g.,* Masimo Ex. 39 at 26, 32. Apple argues that settings falls within the specification's "settings application." *Supra* at 77.[25] But the specification explains that the settings application performs tasks unrelated to the internal functions of the device, such as configuring the email accounts

[25] Nothing supports Apple's footnote 24 speculation that the '352 patent's discussion of adjusting intensity thresholds at 33:15-20 describes functionality of the settings application.

accessed by the email application and configuring display settings for the calendar application. *See* '352 patent at 30:65-67; Masimo Ex. 40 ¶36. Those tasks go beyond "(a) device control, (b) device status indication, or (c) another task related to the internal function of the device itself." Therefore, the specification's "settings application" is an "application." But that does not result in settings as somehow being "applications" as Apple asserts.

c) Apple's Reply Position

The term "application" requires no construction. ***Masimo's*** asserted patents in this case claim an "application" that performs various tasks—yet Masimo proposes "[p]lain and ordinary meaning." C.A. 1378, D.I. 169 (JCCC) at 7; *see also* Defendants' Opening Claim Construction Brief at 13. If an "application" is so readily understandable in Masimo's patents, then it is readily understandable in Apple's patents as well.

Masimo's remaining arguments fail for three additional reasons. ***First***, Masimo's construction should be rejected because it excludes applications disclosed in the specification. For example, the "settings" application "provides access to ***settings*** for [the] device [itself] and its various applications."[26] '352 Patent, 30:65-67. That functionality is both device control and a task related to the function of the device itself, and would be improperly excluded under Masimo's construction. Masimo cites to its expert to argue that its construction would not exclude the settings application because, according to him, the settings application also "configure[s] the email accounts accessed by the email application and configure[es] display settings for the calendar application." *Supra* at 78 (citing Masimo Ex. 40, ¶36). But those tasks squarely relate to device control and the internal function of the device itself. Apple Ex. 47, ¶27. And critically, Masimo's

[26] Contrary to Masimo's argument, (*supra* at 79, n.25), the specification connects the settings application to adjusting intensity levels. Specifically, the specification states that "the user ***of the device*** is provided with software settings for adjusting intensity thresholds," and the settings application provides access to those "settings ***for [the] device***." '352 Patent, 30:65-67; 33:15-20.

expert does not cite anything ***in the patent*** showing that the settings application performs those additional tasks—rather, he is purportedly describing "the settings application on an ***iPhone***." Masimo Ex. 40; Apple Ex. 47, ¶26.

Second, Masimo's other extrinsic evidence does not support its construction. None of the ***five*** dictionaries that Masimo cites imposes the same restrictions on "application" as Masimo does in its construction. Indeed, one of Masimo's dictionaries broadly defines "application" as simply a program that "makes calls to the operating system and manipulates data files." Masimo Ex. 38. That definition contradicts Masimo's construction that an application cannot perform a task "related to the internal function of the device itself." Apple Ex. 47, ¶28.

Third, far from providing guidance to the jury, Masimo's construction would only create confusion. Modern jurors with the aid of expert testimony are well qualified to understand whether something is an "application." Under Masimo's proposed construction, the jury will not be performing that task, but instead will be forced to consider whether a program "performs a task beyond" (1) "device control," (2) "device status indication," or (3) some other undefined "task related to the internal function of the device itself."

d) Masimo's Sur-Reply Position

That the parties dispute the meaning shows why the Court should construe "application." *Compare* Masimo Ex. 40 ¶¶29-38 *with* Apple Ex. 47 ¶¶23-28. Apple proposes allowing the experts to dispute that meaning in front of the jury. *Supra* at 80-81. But that dispute should ***not*** be presented to the jury. *O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008).

The specification distinguishes global device settings from settings specific to individual applications. Masimo Ex. 40 ¶¶31-38. Application settings—such as configuring email accounts and calendar application display settings—are not ***device*** settings such as turning vibrate mode or

Bluetooth on or off. *Supra* at 79-80. Indeed, Balakrishnan acknowledges that application settings control "particular functions with regards to those email and calendar applications." Apple Ex. 47 ¶27. But without support, Balakrishnan opines those settings entail "nothing more than device control." *Id.* That opinion is inconsistent with the specification's distinction between applications and device controls. *See supra* at 78.

Apple criticizes extrinsic evidence of the iPhone settings application. *Supra* at 80-81; Apple Ex. 47 ¶26. But the patent discloses "embodiments … include … the iPhone®." '352 patent at 7:20-23.

Apple argues Masimo's definitions do not support its construction. *Supra* at 80-81. But Rosenberg explained how the definitions support Masimo's construction in view of the '352 patent. Masimo Ex. 40 ¶¶30-34. And Apple crops the definition it cites to leave out that an "application" allows "a user to perform a specific job (such as accounting or word processing)." *Supra* at 80; Masimo Ex. 38. The full definition supports Masimo's construction.

Apple argues "application" should not be construed for the '352 patent because Masimo does not propose to construe it for Masimo's patents. *Supra* at 80. But construction is needed "to resolve the controversy" for the '352 patent, not Masimo's patents. *Vivid Techs.*, 200 F.3d at 803.

12. "side" ('483 Patent, Claims 1, 3, 5, 10, 16, 18)

a) Apple's Opening Position

Apple's Proposed Construction	Masimo's Proposed Construction
plain and ordinary meaning	external surface different from the front surface or the back surface

The claims recite a "wearable electronic device" (claim 1) or an "electronic watch" (claim 10) with: (1) a "front exterior surface"; (2) a "rear surface" or "rear exterior surface"; and (3) a "side." '483 patent, claims 1, 10. The specification describes a "side" broadly: a side can be flat and "orthogonal" to other sides (*id.*, 3:43–51); a side can have "rounded corners" (*id.,* 30:34–57);

a side can be "curved" (*id.*, 3:23–27, 4:49–52); and a side can be "curved" in a way that extends into an edge of other portions of the device "to form a continuous contoured surface" (*id.*, 3:30–36, 24:1–7, Fig. 6). Accordingly, "side" should be given its plain and ordinary meaning.

Masimo's construction is wrong for two reasons. ***First***, Masimo improperly limits the claimed "side" to an "external surface." Claims 1 and 10 recite that the ***front*** surface is an "exterior" surface and claim 10 recites that the ***rear*** surface is an "exterior" surface. '483 patent, claims 1, 10. But the claims do not limit the side to an "external surface." Accordingly, it is improper to apply a term that appears in relation to the front/back surfaces to the side (where it is absent). *See Joy MM Delaware, Inc. v. Cincinnati Mine Mach., Co.*, 497 F. App'x 970, 973 (Fed. Cir. 2012) ("[W]e must presume that the use of these different terms in the claims connotes different meanings."). ***Second***, the claims already distinguish between a "side" of the device and the "front" and "rear" surfaces, rendering the rest of Masimo's construction superfluous. *See, e.g.*, '483 patent, claim 1 (claiming a "front exterior surface," a "rear surface," and a "side").

b) Masimo's Answering Position

The claims recite a cover defining part of a "***front*** exterior surface," electrodes "positioned along a ***rear*** surface" and an electrode "positioned along a ***side***." Apple admits the claims "distinguish between a 'side' of the device and the 'front' and 'rear' surfaces." *Supra* at 83; *see also* Masimo Ex. 41 at 7-9. Thus, the parties agree that "side" is "different from the front surface or the back surface."[27] Masimo's construction captures that agreement and is not superfluous because a juror could incorrectly think the front and back are sides of a watch.

[27] "External" need not be part of the construction because it is not material to the dispute.

c) Apple's Reply Position

Masimo no longer asserts that the claimed "side" must be an "external surface." *See supra* at 83. Masimo now only argues that the side is different from the front and back surfaces. But the claims already recite the relationship among the front and back surfaces and the side, so no further construction is necessary. *Id.*

d) Masimo's Sur-Reply Position

The parties agree that "side" is different from the front and back surfaces. *Id.* at 82-83. The jury should be provided a construction that reflects the parties' agreement so the jury does not believe the "side" could be either the front or back.

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Respectfully submitted,

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